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THE
JOURNAL
OF
THE ASIATIC SOCIETY
OF
BENGAL.

VOL. VI.

THE
JOURNAL
OF
THE ASIATIC SOCIETY
OF
BENGAL.

EDITED BY

JAMES PRINSEP, F. R. S.

SECRETARY OF THE ASIATIC SOCIETY OF BENGAL; HON. MEM. OF THE AS. SOC.
OF PARIS; COR. MEM. OF THE ZOOLOGICAL SOC. OF LONDON, AND OF THE
ROYAL SOCIETIES OF MARSEILLES AND CAEN; OF THE ACADEMY
OF NATURAL SCIENCES OF PHILADELPHIA; OF THE
PHILOSOPHICAL SOCIETY OF GENEVA; OF
THE ALBANY INSTITUTE, &c.

VOL. VI.

JANUARY TO DECEMBER,

1837.

“ It will flourish, if naturalists, chemists, antiquaries, philologists, and men of science, in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society at Calcutta; it will languish, if such communications shall be long intermitted; and will die away, if they shall entirely cease.”

SIR WM. JONES.

Calcutta:

PRINTED AT THE BAPTIST MISSION PRESS CIRCULAR ROAD.
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VOL. VI.—PART I.

JANUARY TO JUNE,
1837.

“ It will flourish, if naturalists, chemists, antiquaries, philologists, and men of science, in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society at Calcutta; it will languish, if such communications shall be long intermitted; and will die away, if they shall entirely cease.”

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PREFACE.

WE have the pleasure of closing this sixth volume of our Journal with an unexpected announcement:—the last steam packet has brought out instructions from the Honorable Court of Directors to the Government of India to “subscribe in their name for FORTY copies of the Journal of the Asiatic Society from the commencement of its publication!” We forbear to comment upon an act of liberality by which we shall personally be such a gainer, but which we have neither directly nor indirectly solicited. We can easily imagine to whose friendly influence we are indebted for it, and we hope he will accept our acknowledgments. Our principal difficulty will be how to meet the wishes of the court; for of our early volumes not a volume is now to be procured! We must seriously consider the expediency of a reprint, for we have even heard it whispered that an American edition was in contemplation, and such a thing cannot be deemed impossible when we find the Philadelphians undertaking to rival us of Calcutta in printing (and that without government support) a Cochinchinese dictionary*!

Of local support we have lost nothing by the measure we reluctantly adopted at the beginning of the year, of raising the price of the journal from one to one and a half rupee per number. Our list is fuller than ever, and our balance sheet of a much more promising aspect.

* M. P. ST. DUPONCEAU thus writes to M. JACQUET of Paris: “J’ai maintenant le plaisir de vous informer que la Société philosophique Américaine vient d’ordonner l’impression à ses frais des deux vocabulaires donnés à Mr. WHITE par le R. de MORRONE, ils vont être publiés dans un volume des mémoires de son comité d’histoire et de littérature, étant trop volumineux pour faire partie de ses Transactions philosophiques.

| PAYMENTS. | | | RECEIPTS. | | | | |
|---|------------|------------|-----------|--|------------|------------|-----------|
| | <i>Rs.</i> | <i>As.</i> | <i>P.</i> | | <i>Rs.</i> | <i>As.</i> | <i>P.</i> |
| To balance due 1st January, | 1,304 | 2 | 11 | By collections this year, .. | 3,455 | 2 | 8 |
| To printer's bills for 1836, pd. | 5,248 | 15 | 0 | By distribution to Mem- } bers of the As. Society, } | 1,293 | 0 | 0 |
| To engravings and litho- graphs, | 910 | 0 | 0 | By shop sales, | 280 | 13 | 6 |
| To expence of circulation, | 421 | 11 | 9 | By sales in England, | 415 | 6 | 0 |
| To postage ditto, | 48 | 3 | 0 | By balance due, | 2,488 | 10 | 6 |
| | <hr/> | | | | <hr/> | | |
| | 7,933 | 0 | 8 | | 7,933 | 0 | 8 |
| | <hr/> | | | | <hr/> | | |
| Bills for 1837 due say, .. | 6,000 | 0 | 0 | Collections due by Asiatic } Soc. and subs. in the } three Presidencies, } | 7,139 | 7 | 5 |
| Add former balance, .. | 2,488 | 10 | 6 | | | | |
| | <hr/> | | | | | | |

The deficiency, supposing all to be recoverable, is 1,349 13 1, or almost precisely what it was last year; so that our present price exactly pays the expenses of publication.

The bulk of the volume has gone increasing at the usual rate, and instead of eight hundred pages, we have now risen to eleven hundred, with sixty plates; too much to be conveniently bound up in one volume. We have therefore provided separate title pages to enable those, who so prefer, to divide the annual volume into two parts with an index, common to both, at the conclusion of the second part.

The prominent subject of public discussion (to imitate the order of preceding prefaces) as far as the Asiatic Society is concerned, has been THE MUSEUM,—the memorial to the local government—now under reference to the Court of Directors,—suggesting that the Society's collection of antiquities and natural history should form the nucleus of an extensive national establishment, in the present day almost "an essential engine of education, instructive alike to the uninformed, who admires the wonders of nature through the eye alone, and to the refined student who seeks in these repositories what it would be quite out of his power to procure with his own means." It is to be hoped that this appeal to the court will not share the fate of the oriental publication memorial of 1835, which is still unacknowledged; but that we shall soon have an answer embracing the united objects of the Society's solicitude, and enabling her to advance boldly in her schemes to secure for herself, and for the British name the glory of placing 'India physical, moral, and historical,' upon the records of literature. What could be adduced as a more convincing 'argumentum' (*ad ignorantiam* dare we say?) than the fact that at this moment a French gen-

tleman of fortune well grounded in Sanskrit and other oriental studies at Paris, is come to Calcutta, 'about to retrace the steps of the French naturalists DUVAUCEL and JACQUEMONT in the interest of the antiquarian, as they travelled in that of the physical sciences.' He contemplates exploring *Gaur, Patiliputra, Magadha, Mithila, Kási, Ayudhya, Nipál, Kemaon, the Panjáb Affghanistán, Tibet*; then the *Jain* provinces, as they may be called, of *Márwár* and *Málwá*, and finally the cave antiquities of Western India*.

We wish M. THEROULDE every success, we proffer him every aid; yet we do so not without a blush that any thing should be left for a foreigner to explore! India, however, is large enough for us all to run over without jostling, and we cannot allow that inactivity is at the present moment a reproach against our Society or our governors. We have expeditions in *Cashmir, Sinde, Bhotán, Ava, Maulmain*, all well provided with scientific adjuncts, and contributing to our maps, our cabinets, and our commerce. Our Societies were never more vigorous. The Agricultural of Calcutta is become exceedingly active. The Geographical of Bombay has opened the field with an interesting volume and a journal of proceedings; and in science we have to boast of the brilliant progress of experiment and magnetic discovery due to one whom we should be happy at having enlisted among our own members. With his colleagues of the Medical College,

* We cannot omit to notice here another laudable demonstration of the greater honor that awaits literary merit at Paris than in London—making full allowance for the proverbial truth that a prophet must seek honor out of his own country. We have just learnt that the French Government has ordered a gold medal to be struck for, and the decoration of the Legion of Honour to be bestowed on Mr. B. H. HODGSON, in return for the valuable donation of Sanskrit manuscripts presented by him to the Asiatic Society of Paris,—and in token of their appreciation of the great services he has rendered to oriental literature. Neither in this case is the reward blindly given, nor the present disregarded; for we know that the Sanskrit scholars of Paris have already dipped profoundly into the contents of the Nipalese Buddhist volumes, and in a short time we may expect a full analysis of them. As a comment on this announcement we may add that similar donations more extensive and more valuable were long since presented by the same party to the Royal Asiatic Society and to the College of Fort William, and that (with exception of the Tibetan portion so well analysed by M. COMA) they remain as yet sealed books.

Professor O'SHAUGHNESSY has drawn off to their own valuable publication, the subjects of chemical and physical interest to which we should otherwise have felt ourselves blameable in not offering a conspicuous place. While far different occupations have prevented our passing in review the very promising discoveries in this novel and enticing science, to which their public exhibition has now familiarized the society of Calcutta, the sight of models of magnetic motors and explosive engines worked by gas and spark, both generated by galvanism alone, leads us to suggest that mechanics and the arts should have been included among the proper objects of our projected national museum. An Adelaide gallery would do more to improve the native mind for invention than all the English printed works we would place before them.

But we are as usual wandering from the legitimate objects of a preface. Our own attention has been principally taken up this last year with Inscriptions. Without the knowledge necessary to read and criticise them thoroughly, we have nevertheless made a fortunate acquisition in palæography which has served as the key to a large series of ancient writings hitherto concealed from our knowledge. We cannot consent to quit the pursuit until we shall have satiated our curiosity by a scrutiny of all these records—records as Dr. MILL says, “which are all but certainly established to belong to and to illustrate a most classical and important part of the history of this country.” In our hasty and undigested mode of publication, we are doubtless open to continual corrections and change of views: as a talented and amusing satire on our present predilection for old stones and old coins, in the Meerut Magazine describes it,—‘if not satisfied with one account our readers have only to wait for the next journal to find it discarded and another adopted, as in the case of the Bactro-pehlevi alphabet.’

The learned M. E. BURNOUF in a most interesting article inserted in the *Journal des Savans* for June,* says, alluding to the Burmese inscription at *Gaya* published first in the journal, and

* On the grand work of the Chinese Buddhist traveller FŒ KŒUE KI, lately published at the expense of the French Government, through the labour of three successive editors MM. REMUSAT, KLAPROTH and LANDRESSE. Alas! when shall we in India have an opportunity of seeing these works at any tolerable period after their publication?—ED.

afterwards more completely commented upon by Colonel BURNEY,—“ il faut le dire à l'honneur des membres de la Société Asiatique du Bengale, le zèle qui les anime pour l'étude des antiquités de l'Inde est si soutenu et si heureusement secondé par la plus belle position dans laquelle une réunion de savants ne soit jamais trouvée, que les monuments et les textes qu'ils mettent chaque jour en lumière succèdent avec une rapidité que la critique peut à peine suivre.” While they are taken up with an object once published, we are republishing or revising or adding more matured illustration to it. Some may call this system an inconvenient waste of space and tax on readers, who are entitled to have their repast served up in the most complete style at once, and should not be tantalized with fresh yet immature morceaux from month to month. We, however, think the plan adopted is most suitable to an ephemeral journal, which collects materials and builds up the best structure for immediate accommodation, although it may be soon destined to be knocked down again and replaced by a more polished and classical edifice :—*diruit ædificat ; mutat quadrata rotundis*,—may still be said of our journal, without imputing capricious motives to our habit of demolition. We build not fanciful theories, but rather collect good stones for others to fashion, and unless we advertize them from the first, with some hint of their applicability, how should architects be invited to inspect and convert them to the “benefit and pleasure of mankind?”—*hitasukhâya manusânam*,—as the stone pillars at *Delhi* and *Allahabad* quaintly express the object of their erection.

Connected with the subject of these remarks we would fain in this place give insertion (and we will do so hereafter) to a valuable series of criticisms on the matter of our last volume contained in M. JACQUET'S correspondence. It is just what we most desire. With the aid of an index, such additional information and correction is as good as if incorporated with the text, to the reader who in future days wishes to ferret out all that has been done on a particular subject ; and we would have all our contributors and readers bear in mind that our journal, though it has long changed its title, does not pretend to have changed its original character of being a mere collection of “Gleanings.”

Calcutta, 1st January, 1838.

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ERRATA.

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IN NO. 26, (VOL. II.) OF THE JOURNAL.

- 89, 26, for 'the first specimens,' read 'the finest.'
 93, 29, read 'No. 17 Lymnaea, . . . (mihi)—limosa ?'
 523, 3, for 'knee,' read 'neck.'
 IN THE JOURNAL FOR 1836.
 733, 7, from bottom, read 'granular matter, the fovilla, and bursts if the im-
 mersion is somewhat protracted.'
 812, 21, *dele* the proposed name Cyananthus, which is already appropriated in
 Dr. WALLICH's catalogue.
 829, 3, from bottom, for 'interesting,' read 'intimate.'

- 348, 6, after 'to this' insert 'day.'
 350, 44, for '2,3. Hunda,' read '2. Hunda.'
 377, 3, from below, for 'a,' read 'an.'
 384, 9, from below, for 'general,' read 'generic.'
 386, 22, after written insert semicolon.
 387, 4, from below, for 'صورت' read 'صورت'
 392, 4, for 'unexpected,' read 'unsuspected.'
 391, 12, for 'Denavāgri,' read 'Devanāgari.'
 460, 35, for '५१' read '५१'
 467, 19, for 'Parthia,' read 'Bactria.'
 468, 21, for 'the Sauchi,' read 'at Sanchi.'

The vowel mark *e* has been broken off under the press in a great many passages of the Sanskrit readings of the Delhi inscription in the July number, particularly in the word *mé*.

- 581, 7, after 'by,' insert 'the.'
 583, 5, of notes, for 'nimitat,' read 'nimita.'
 584, 12, ditto *dele* 'm' after 'esa.'
 585, 9, ditto for 'junè,' read 'janè.'
 — 20, ditto for 'participular,' read 'participular.'
 594, 25, ditto for 'adopting,' read 'adapting.'
 595, 12, ditto for 'nacshatras,' read 'nacshatric.'
 603, 11, ditto for 'dhara,' read 'ádhára.'—
 604, 4, ditto for 'neat,' read 'next.'
 608, 6, ditto for 'you,' read 'thou.'
 — 19, ditto for 'Kahgur,' read 'Kahgyur.'
 676, 7, for 'this powerful,' read 'his powerful.'
 — 3, from below, for 'ayantaliyam,' read 'anantaliyam.'
 766, 29, for '24° 13½,' read '24 miles: 13½.'
 779, 2, and 5, for 'is,' read 'are.'
 791, 8, for 'Chadaguttassa,' read 'Chandaguttassa.'
 — 17, for 'leaæes,' read 'leaves.'
 794, 7, after quarter, insert full point.
 — 3, from bottom, for 'very,' read 'verh.'
 795, 30, for 'papey,' read 'paper.'
 — last line, for 'वट' read 'वट.'
 876, 1, for 'توفى يوم الثلثا' read 'توفى يوم اثنان' and in the transla-
 tion, line 14, for 'WAD,' read 'WALD,' (or WALR,) and for 'Monday,'
 read 'Tuesday.'
 884, 7, for 'वसारि,' read 'विसारि.'
 13, for 'आयातरम्यं,' read 'आपातरम्यं.'
 19, for 'विशोधि,' read 'विश्लाधि.'
 976, 3, for 'स्फट,' read 'स्फुट.'
 4, for 'हत्सु,' read 'हाद्यु.'
 6, for 'तत्वो,' read 'तद्वो.'
 13, for 'सादिकेनाथेनचत्तो,' read 'सादेकेनाथेनचत्तो.'
 977, 18, for 'जाद्वनेरणा,' read 'जनोद्वरणा.'
 942, [The extract from the Rekha Ganita differs very materially from the copy in
 the College here, and the following passage in page 944, after the word भवति in
 line 7 is required to complete the explanation of the figure:
 तद्दिशि न द्वितयेः रेखयोरन्तरमु सेचरसधिकभेव भवति यचात्प मन्तरं
 The rest are additions to the preface which it is less necessary to correct.]

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I.—*Singular narrative of the Armenian king ARSACES and his contemporary SAPOR, king of Persia; extracted from the Armenian chronicles. By JOHANNES AVDALL, Esq. M. A. S.*

ARSACES the second, son of TIRAN, wielded the sceptre of royalty in *Armenia* in the middle of the fourth century. He was contemporary with the Persian king SAPOR, surnamed the long-lived, with whom he closed a treaty of alliance, offensive and defensive. Both were descendants of the ARSACIDÆ, and thus stood related to each other by the ties of consanguinity. Distrustful of the sincerity of the friendship of ARSACES, SAPOR took the precaution of securing it by the obligation of a solemn oath. He feared a formidable enemy in the person of the emperor of *Greece*, and it was his policy to devise every means in his power to alienate from him the good-will of the king of *Armenia*. In vain ARSACES assured him of his continued attachment. SAPOR sent for the Armenian priests of the church of Ctesiphon, the head of whom was called MARI. ARSACES was induced to swear by the Gospel in their presence, to keep inviolate the profession of his alliance and friendship to the king of *Persia*.

ARSACES was a valiant, but fickle king. His bravery could only be equalled by the degree of perfidy he displayed in his intercourse with the people over whom he ruled, and with his avowed allies. Cruelty and treachery were the principal characteristics by which his acts were distinguished. For a while he continued firm in the observance

of his friendship towards SAPOR, of which he afforded him a proof by co-operating with him in an expedition against the emperor of Greece. But, by the intrigues of one of his courtiers called ANDOVK, the good feeling and affection that existed between the two potentates, were changed into the deadliest enmity and hatred. ARSACES waged war with SAPOR for thirty years, and fortune invariably crowned his operations with success. He owed many of his conquests to the skill, experience and intrepidity of the Armenian general VASAK, who, though of a diminutive size, on all occasions inspired the Armenian troops with courage, and created terror and dismay in the Persian ranks.

Flushed with success, and being naturally cruel, he ordered the principal Armenian satraps to be butchered in cold blood, and their estates and property confiscated. These and similar atrocities made him unpopular with his army, and estranged the hearts of the Armenian people from their monarch. Wearied by repeated hostilities, and harrassed by continued carnage, SAPOR addressed friendly letters to ARSACES, inviting him to go to *Persia*, and expressing his readiness to conclude peace with him. ARSACES, however reluctant to desist from the continuance of war, was induced to accept his offer, and, in signifying his acquiescence, sent him suitable presents. But, SAPOR far from wishing to renew his friendship, endeavoured to decoy ARSACES and to annihilate the kingdom of *Armenia*. FAUSTUS of *Byzantium*, who wrote a history of *Armenia* extending to the close of the fourth century, narrates a singularly romantic story about the visit of ARSACES to the Persian king, and his subsequent adventures in *Persia*. The work of this historian was first published in *Constantinople* in the year 1730, and latterly by the Mechitharistic Society of *Venice* in 1832. I shall here give a translation of the narrative.

“Then SAPOR, king of *Persia*, sent another deputation to ARSACES, king of *Armenia*, expressing a desire to effect a reconciliation. ‘If,’ said he, ‘we are willing to be hereafter on terms of peace with each other, this wish can only be realised by a visit to me on your part. I shall be to you as a father, and you as a son to me. Should you, however, be unwilling to accept of my proposal, then I must conclude that you are still inimically disposed towards me.’ ARSACES was apprehensive of visiting the king of *Persia*, without demanding the obligation of a solemn oath from him. Hereupon, SAPOR ordered a little salt to be brought to him, and according to the practice prevalent in *Persia*, sealed it with a ring bearing the impress of a wild boar, and sent it to ARSACES. He also intimated, that in case the

king of *Armenia* disbelieved his oath by refusing to accede to his wishes, then that refusal would be considered as a signal for the commencement of hostilities.

“By the intreaties of the Armenian people, ARSACES was induced to acquiesce, and *nolens volens* resolved to pay a visit to SAPOR. Accompanied by his faithful general VASAK, he proceeded to *Persia*, and was conducted into the royal palace. SAPOR no sooner saw them, than he ordered them to be placed under guards and treated as prisoners. He spoke to the Armenian king with contempt, and looked upon him as a slave. ARSACES expressed his regret for the past, and stood as a guilty man before him, who directed him to be kept under the strictest surveillance.

“Then SAPOR sent for astrologers and magicians, and communicated with them about his royal prisoner. ‘I have,’ said he, ‘on several occasions manifested affection towards ARSACES, king of *Armenia*, but he has returned my kindness with ingratitude and contempt. I have entered into a treaty of peace with him, which he swore to keep inviolate by that sacred volume of the Christian religion, which they call the Gospel. He violated that oath. I had contemplated to be uniformly kind and friendly to him, but he abused the confidence of my friendship. I ordered the Armenian priests of Ctesiphon to be summoned to my presence, from a supposition that they had deceitfully administered an oath to ARSACES, and afterwards instigated him to a violation of that oath. I considered them guilty of a heinous crime, but was assured by the high priest called MARI, of their having performed the task of adjuration in a just and becoming manner. It was also mentioned, that if the Armenian king acted contrary to that solemn obligation, the Gospel, by which he had sworn, would drag him to my feet. I could not, however, persuade myself to believe what MARI and his colleagues asserted. I ordered seventy of them to be slaughtered in one pit, and put their followers to the sword. The Gospel, by which ARSACES had sworn, and which is the fundamental rule of the Christian religion, I desired to be tied with chains and kept in my treasury. But, now I call to recollection the assertion of MARI, who intreated me to spare their lives, and assured me that the very Gospel would bring the perjurer to my feet. The prediction of that priest has been fully verified. It is now upwards of thirty years that ARSACES unceasingly waged war with the Persians, and on all occasions proved victorious. Now, he has surrendered himself to us of his own accord! Could I assure myself of his friendship and allegiance in future, I should allow him to depart in peace to *Armenia*, loaded with honors and valuable presents.’

“The astrologers and magicians required time for the consideration of the question proposed to them by SĀPOR. On the following day they assembled at the royal palace and said, ‘Since the Armenian king ARSACES has come to you of his own accord, we desire to know how he speaks to you, how he behaves in your presence, and what does he think of himself?’ SĀPOR replied, ‘He considers himself as one of my servants, and lies prostrate in the dust at my feet.’ The astrologers and magicians advised him how to act. ‘Do what we say,’ replied they: ‘keep ARSACES and his general here in confinement, and send messengers to *Armenia*, with instructions to bring from that country two loads of earth and a large pitcher of water. Get the half of the floor of the royal pavilion strewed with the earth of *Armenia*, and holding the Armenian king by the hand, walk over that part of the ground covered with the earth of *Persia*, and confer with him on a subject. After which, tread with him over the earth brought from *Armenia*, and put him some questions. Thus you will be enabled to ascertain from his address and replies whether he will continue firm in his allegiance and friendship to you, after your allowing him to depart to *Armenia*. Should he, however, assume an overbearing attitude while treading on the Armenian earth, then be assured of the renewal of his hatred and enmity towards you, and of the commencement of fresh hostilities immediately after his return to his native soil.’

“The king of *Persia* adopted the suggestions of the astrologers and magicians. He despatched messengers to *Armenia* with dromedaries, for the purpose of bringing a quantity of earth and water from that country, and trying therewith the proposed experiment. In course of a few days the orders of SĀPOR were put into execution. He then ordered the half of the floor of his royal pavilion to be strewed with the earth, and sprinkled with the water brought from *Armenia*, and the other half to be covered with the earth of *Persia*. He desired ARSACES, king of *Armenia*, to be brought before him apart from other individuals, and began to walk with him hand in hand. While going to and fro over the Persian earth, SĀPOR asks, ‘why did you become my enemy, ARSACES, king of *Armenia*? I have looked upon you as my son, and contemplated to form an alliance with you by effecting a marriage between you and my daughter, and thus to take you into my adoption. But you have armed yourself against me, and of your own free will treated me as a foe, by waging war with the Persians for upwards of thirty years.’

“ARSACES replied, ‘I have transgressed the law of friendship, and must confess my fault. It was I that routed your enemies, and put

them to flight, in the hope of being honored by you with rewards. But those, who had plotted my ruin, endeavoured to estrange my heart from you, and to create dissensions between us. The oath, administered to me by MARI, has conducted me to your presence, and here I stand before you! I am your servant, professing submission to you. Treat me as you choose, or kill me. I am a guilty man, and your despicable slave.'

"SAPOR the king holding him by the hand, received his justification, and conducted him to that part of the ground covered with the Armenian earth. No sooner had they began to walk there, than ARSACES changed the tone of his voice, and had recourse to vehement and insolent language. 'Thou wicked slave,' said ARSACES, 'stand aloof from me! Thou hast usurped the throne of thy lords and masters! I must punish you for the wrongs you have done to my ancestors, and the death of the king ARTEVAN* must be revenged on you! Thou hast robbed me of my crown and country, but these must be restored to me, and your audacity shall not be allowed to remain unpunished!'

"The king of *Persia* hearing this, began to walk again with ARSACES on the Persian earth. The Armenian king then renewed the profession of his submission, expressed his regret for what he had said, and, on his knees, retracted all his expressions. But when he was conducted again to the Armenian earth, he became more insolent than before; and on his returning to the Persian earth, he repented of his temerity. From morning to evening many similar experiments were tried by SAPOR, the result whereof appeared only to be a manifestation of alternate feelings of insolence and repentance in the conduct of ARSACES.

"Evening came on, and the hour fixed for supper approached. It was usual with the king of *Persia* to entertain ARSACES on a sofa, placed next to his own throne. But on the present occasion the customary rule was not adhered to. Precedence was given to the other royal guests residing within the court of *Persia*. ARSACES was allowed to occupy the last seat, on the Armenian earth. He preserved silence for a while, burning with indignation and a desire of revenge. At last he stood on his legs and addressed SAPOR thus: 'The throne on which thou sittest belongs to me. Abandon that seat instantly. My nation have a just claim to it. Should you, however, persist in your injustice, you may be sure of meeting with

* ARTEVAN was a king of *Persia*, whom ARDASHIR the Sasanian put to death, and usurped his throne.—Vide Whiston's *Latin translation of the history of Moses Khorensis, Book II. Chap. lxx.*

a merited retribution from my hands immediately after my return to *Armenia*.

“Hereupon, SAPOR ordered ARSACES to be put in chains, and driven to the castle of oblivion in *Khujistan*. Here he directed him to be kept in strict and perpetual confinement until his death. On the following day he summoned to his presence VASAK MAMICONIAN, the famous Armenian general, and heaped on him torrents of abuse. He took advantage of his diminutive size, and addressed him in a contemptuous manner. ‘Thou little fox,’ said he, ‘remember that it was you that devastated our country for the last thirty years, by putting innumerable Persians to the sword! I will make you die the death of a fox!’ To which VASAK replied, ‘However diminutive I may appear in your eye, I am sure you have not as yet had a personal experience of my mighty arms. I have hitherto acted as a lion, though now you call me by the contemptible appellation of a fox! But, while I was VASAK, I was like a giant. I fixed my right foot on one mountain, and my left on another. The right mountain was levelled to the ground by the pressure of my right foot, and the left mountain sunk under the weight of my left.’ SAPOR desired to know who were personified by these two mountains, that were represented to tremble under the power of the Armenian general. ‘One of these mountains,’ replied VASAK, ‘signifies the king of *Persia*, and the other the emperor of *Greece*. As long as we were not forsaken by the Almighty I held both the potentates in awe and subjection. While we obeyed the laws of the Gospel and followed the paternal advice of our spiritual head, NIERSES the Great*, we knew how to dictate and counsel you. But God has withheld from us the favor of his protection, and we are plunged into the pit with open eyes. I am now in your hands. Treat me as you choose.’ Hereupon the king of *Persia* ordered the Armenian general VASAK to be cruelly butchered, his skin to be flayed and filled with hay, and carried to the castle of oblivion, where the king ARSACES was imprisoned.”

Here ends this singularly romantic narrative of FAUSTUS. The castle of oblivion, it must be remembered, was a place of solitary confinement in *Khujistan*, intended for prisoners of rank and distinc-

* Մեծն Նիբուհի NIERSES the Great was one of the pontiffs of *Armenia*, and great-grandson of St. GREGORY the Illuminator. He built upwards of two thousand convents, monasteries and hospitals in *Armenia*, and was consequently called by the appellation of the Հինուլ Architect. He was poisoned by PAP, the son and successor of ARSACES, and was buried in the village of *Thim*.

tion. The wretched inmates of this dreary habitation were by the law of the land considered politically dead. Even the bare mention of their names was strictly prohibited, under the pain of a similarly rigorous imprisonment. SAPOR owed a debt of gratitude to the faithful steward of ARSACES, called DIRASTAMATN, who had once saved the life of the former from imminent danger in the din and confusion of a battle. "I am willing," said the Persian king, "to make you a recompense for your disinterested services to me. You are, therefore, at liberty to ask any reward you choose, and your request shall be readily granted." DIRASTAMATN expressed his burning desire once to see his royal master. "I have no other wish," said he, "save that of being permitted to visit ARSACES, and to spend a day of merriment with him, released from his chains." SAPOR was unwilling to yield to the wishes of his benefactor, but in consideration of his strong claim on his generosity, allowed him to proceed to the castle of oblivion, under the escort of a trusty guard, and bearing with him a royal mandate sealed with the signet of the court of *Persia*.

DIRASTAMATN, on his arrival in the castle of oblivion, burst into tears and fell at the feet of ARSACES. He untied the chains of his royal master, washed his head, cleaned and anointed his body with odoriferous oil, invested him with costly robes, seated him on a throne, placed before him rare delicacies, and standing near him on his legs, acted the part of a cup-bearer. Affected by an immoderate use of wine, the king of *Armenia* gave vent to his inward grief, and began to groan from the pangs of his heart, by contrasting his former grandeur and happiness with his present servitude and misery. The knife, placed on the cloth, he thrust into his breast, and thus ended his miserable life in despair. DIRASTAMATN seeing this, dislodged the fatal weapon from the breast of ARSACES, and therewith put an end to his own existence.

This narrative of the condemnation and subsequent banishment of ARSACES, by the machinations of magicians and astrologers, is fully noticed by PROCOPIUS, in the fifth chapter of the first book of his history relative to the Persian war, probably borrowed from the historical work of FAUSTUS, extant in the Armenian language. But PHOTIUS, the celebrated Greek Patriarch, who wrote an abridgment of the history of PROCOPIUS, considered this story as a mere piece of romance or fable, and as such it will be viewed by the learned of the present age.

II.—*Translation of an Inscription on a stone in the Asiatic Society's Museum, marked No. 2. By Captain G. T. MARSHALL, Examiner in the College of Fort William.*

[In pursuance of our intention of making known all the inscriptions and ancient records within our reach, along with facsimiles of the characters in which they are written, we now proceed with our review of the unedited blocks in the Society's possession. Captain MARSHALL has kindly undertaken the task of translation in this case, and, as the letters are in perfect preservation and in the well-formed type of the Gaur alphabet, we have thought it unnecessary to insert more than a specimen of the beginning of the inscription, the full size of the original, in Plate VII. The allusion to the Gaur dynasty affords a clue to the date of the document, and on the obscure, half-defaced line at the termination of the 24th line, we think the words *संवत् ३२* are clearly visible, referring doubtless to the same Gaurian epoch which has been remarked in so many other similar monuments, and therefore placing the document in the 10th or 11th century. We cannot discover by whom the stone was presented to the Society. On the back of it are half cut Hindu images.—ED.]

This inscription is without date; but the form of the letters and the names of persons mentioned will probably render the fixing of its age an easy matter to those conversant with such subjects. It was composed by a pandit named SRI' VÁCHASPATI, in praise of a bráhman of rank and learning, styled BHATTA SRI' BHAVA-DEVA and his family—and it would appear that the slab on which it is engraved, must have been affixed to some temple of which BHAVA-DEVA was the founder. The individuals of this family, whose names are given, are, 1. SÁVARNA MUNI, the root of the gotra or line.—2. BHAVA-DEVA 1st, a descendant of the above, whose elder and younger brothers were MAHÁ-DEVA and ATTAHÁSA.—3. RATHÁNGA, son of the above, who had seven younger brothers.—4. ATYANGA, son of the above.—5. BUDHA, son of the above, surnamed SPHURITA.—6. ADI-DEVA, son of the above.—7. GOVARDHANA, son of the above, whose mother's name was DEVAKI'.—8. BHAVA-DEVA 2nd, son of the above, surnamed BÁLA-VALABHI'-BHUJANGA, whose mother's name was SÁNGOKÁ, and who was minister to RÁja HARIVARMA-DEVA and his son. The inscription possesses considerable interest in a literary point of view. It is written in verses of various metres, from the *Anushtup* of eight syllables in each *páda* or half line, to the *Sragdhará* of 21 syllables. The style is ambitious, and abounds in those mythological allusions and double meanings in which the Hindu poets so much delight. The execution proves the author to have been no ordinary composer.

Facsimile of an Inscription on a stone in the As. Soc. Museum.
First line, full size.

ॐ नमो भगवते वासुदेवाय ॥
 यथा कुरुक्षेत्रे कुरुक्षेत्रे युधिष्ठिरः ॥
 नमो भगवते वासुदेवाय ॥
 नमो भगवते वासुदेवाय ॥
 नमो भगवते वासुदेवाय ॥

Dimensions of the Slab, 3 feet by 1½ feet. marked No 2.

insep lith.

Transcript of the Inscription in the modern Deva-nāgarī character.

ॐ नमो भगवते वासुदेवाय ॥

- 1 गाढोपगूढकमलाकुचकुम्भपत्रमुद्राङ्कितेन वपुषा परिरिप्समानः ।
मालुप्यतामभिनवा वनमालिकेति वाग्देवतोपहसितोऽस्तु हरिः
श्रियेवः ॥
- 2 बाल्यात्प्रभृत्यहरहृथ्यदुपासितासि वाग्देवते तदधुना फलतु प्रसीद ।
वक्तास्मि भद्रभवदेवकुलप्रशस्तिस्सूक्ताक्षराणि रसनाग्रमधिश्च
येथाः ॥
- 3 सावर्णस्य मुनेर्महोयसि कुले ये जज्ञिरे श्रोत्रियास्तेषां शासनभूम
योऽजनि गृहं ग्रामाः शतं सन्तते ।
आर्यावर्त्तभुवां विभूषणमिह ख्यातस्तु सर्वाग्रिमो ग्रामः सिद्धल
एव केवलमलङ्कारोऽस्ति राडाश्रयः ॥
- 4 सत्पल्लवः स्थितिमयो दृढबद्धमूलः शाखाग्रलक्ष्ममुखरद्विजशीलि
तश्रीः ।
न ग्रन्थिलो न कुटिलः सरलः सुपर्वा सर्वोन्नतः सुखमिह प्रससार
वंशः ॥
- 5 तदंशोत्तंसमणिः कलस्य दातापि तापनप्रतिमः ।
भव इव विद्यातन्त्रप्रसवः प्रबभूव भवदेवः ॥
- 6 अग्रजानुजयोर्मध्ये महादेवादृष्टासयोः ।
स जज्ञे यज्ञपुरुषोविरिञ्चिहरयोरिव ॥
- 7 स शासनं गौडन्टपादवाप श्रीहस्तिनीदिष्टमहीष्टभूमि ।
अष्टौ सुतानष्टमहेशमूर्त्तिप्रख्यान् विजज्ञेऽथ रथाङ्गमुख्यान् ॥
- 8 रथाङ्गादत्यङ्गः समजनि जनानन्दजननः शशीव क्षीरोदादवि
कलकलाकेलिनिलयः ।
स्फुरत्यज्ञाञ्चोतिः स्फुरित इति नाम्ना दिशि दिशि प्रकाशाऽ
भूत्सौम्यग्रह इव बुधस्तस्य तनयः ॥

- 9 तस्माद्भूदभिजनाभ्यूदयैकवीजमव्याजपौरुषमहातरुमूलकन्दः ।
श्रीश्चादिदेवइति देवइवादिमूर्त्तिर्मर्त्यात्मना भुवनमेतदल
ङ्गरिष्णुः ॥
- 10 यो वङ्गराजराज्यश्रीविश्रामसचिवः शुचिः ।
महामन्त्री महापात्रमबन्धसन्धिविग्रही ॥
- 11 स देवकीगर्भभवं भुवः स्थितौ समर्थमुच्चैःपदलब्धपौरुषं ।
सरस्वतीजानिमजीजनत्सुतं जगत्सु गोवर्द्धनमद्भुतोपमं ॥
- 12 वीरस्थलीषु च सभासु च तात्विकानां दोर्लबीलया च कलया च
वचस्वितायाः ।
यो वर्द्धयन् वसुमतीञ्च सरस्वतीञ्च द्वेषा व्यधत्त निजनामपदं
सदर्थं ॥
- 13 वन्द्यां वन्द्यघटीयस्य ब्रह्मणः प्रयतां सुतां ।
साङ्गोकामङ्गनारत्नं पत्नीं स परिणीतवान् ॥
- 14 तस्यां स्वप्नविधानबोधितनिजोत्पादः स देवो हरिर्जातः श्री
भवदेवमूर्त्तिरमुतःक्षामखलीकश्यपात् ।
यत्पाणिप्रणयि द्वयञ्जलजयोरालक्षितं लक्ष्मणा यस्यान्तर्निहितोऽस्ति
कौस्तुभ इति ज्ञातं प्रकाशोदयात् ॥
- 15 लक्ष्मीन्दक्षिणदोषिण मन्त्रविभवे विश्वम्भरामण्डलं जिह्वाये च
सरस्वतीं रिपुतनौ नागान्तकं पत्रिणं ।
चक्रम्पादतले निवेशितवता दिव्यन्तदाद्यं वपुर्निहोतुमिजचिह्नमे
तदमुना नूनं विपर्यासितं ॥
- 16 यन्मन्त्रशक्तिसचिवः सुचिरं चकार राज्यं स धर्मविजयी हरि
वर्मदेवः ।
तन्नन्दने चलति यस्य च दण्डनीतिवर्त्मानुगा वहलकल्पलतेव
लक्ष्मीः ॥
- 17 सत्पात्रस्य महाशयस्य कमलाधारस्य यस्य क्षमां बिभ्राणस्य गुणाम्बु
धेरकलितस्यान्तर्दीनात्मनः ।

मर्यादामहिमप्रसादशुचितागाम्भीर्यधैर्यस्थितिप्रायाः प्रायश्चरव
वाक्प्रथमतिक्रान्ताः स्वदन्ते गुणाः ॥

18 महागौरी कीर्तिः स्फुरदसिकराला भुजलता रणक्रीडा चण्डी
रिपुरुधिरचर्चा रणभुवः ।

महालक्ष्मीर्भूर्तिः प्रकृतिललितास्ता गिर इति प्रपञ्चः शक्तीनां
यमिह परमेशं प्रथयति ॥

19 यद्ग्राह्यतेजसि बलीयसि मन्दवीर्यः खद्योतपोतकरणिं तरणि
स्तनोति ।

उच्चैरुदञ्चति यदीययशःशरीरे जातस्तुषारशिखरी ननु जानुद्वजः ॥

20 ब्रह्माद्वैतविदामुदाहरणभूरुद्रूतविद्याद्भुतखष्टा भट्टगिरां गभीरिम
गुणप्रत्यक्षदृश्या कविः ।

बौद्धाम्भोनिधिकुम्भसम्भवमुनिः पाषण्डवैतण्डिकप्रज्ञाखण्डनपण्डि
तोऽयमवनौ सर्वज्ञलीलायते ॥

21 सिद्धान्ततन्त्रगणितार्णवपारदृश्या विश्वाद्भुतप्रसविता फलसंहि
तासु ।

कर्त्ता स्वयं प्रथयिता च नवीनहोराशास्त्रस्य यः स्फुटमभूदपरो
वराहः ॥

योधर्मशास्त्रपदवीषु जरन्निबन्धानन्धीचकार रचितोचितसत्प्रबन्धः ।

22 स व्याख्यया विशदयन्मुनिधर्मगाथाः स्मार्त्तक्रियाविषयसंशय
मुन्मार्ज्ज ॥

23 मीमांसायामुपायः स खलु विरचितो येन भट्टोक्तनीत्या यत्र
न्यायाः सहस्रं रविकिरणसमा न क्षमन्ते तमांसि ।

किं भूम्ना सीम्नि साम्नां सकलकविकलास्वागमेष्वत्र शास्त्रेष्वार्युर्वे
दास्त्रवेदप्रभृतिषु कृतधीरद्वितीयोऽयमेव ॥

24 यस्य खलु बालबलभीभुजङ्ग इति नाम नादृतं केन ।

मीमांसयापि सपुलकमाकर्णितवर्णितोद्गीतं ॥

- 25 दंष्ट्रालदुष्टभुजगप्रणमोहरात्रिप्रत्यूषतूर्यनिनदैरिव मन्त्रबर्णैः ।
यो जीवयन् जगदशेषमभूदपूर्वं मृत्युञ्जयो गरलकेलिषु नीलकण्ठः ॥
- 26 राढायामजलासु जाङ्गलपथग्रामोपकण्ठस्थलीसीमासु अममघ्न
पात्र्यपरिघप्राणाशयप्रोक्षणः ।
येनाकारि जलाशयः परिसरस्नाताभिजाताङ्गनावक्त्राञ्जप्रतिविम्ब
मुग्धमधुपीश्रुन्याञ्जिनीकाननः ॥
- 27 तेनायं भगवान् भवार्णवसमुत्ताराय नारायणः श्रैलः सेतुरिव
प्रसाधितधरापीठः प्रतिष्ठापितः ।
यःप्राचीवदनेन्दुनीलतिलको लीलावतंसेत्यलं भूमेभूतलपारि
जातविटपीसंकल्पसिद्धिप्रदः ॥
- 28 तेन प्रासाद एष त्रिपुरहरगिरिस्पर्द्धया वर्द्धितश्रीः श्रीमान्
श्रीवत्सलक्ष्मा हरिरिव विहितो विस्फुरच्चक्रचिह्नः ।
जित्वा यो वैजयन्तं वियति वितनुते वैजयन्तीविलासान् कैलासे ना
भिलाघं कलयति गिरिशो यस्य संलक्ष्य लक्ष्मीं ॥
- 29 न्यवीविशद्देशनि तत्र विष्णोः स निर्गमरं गर्भमृष्टहान्तरेषु ।
नारायणानन्तसिंहमूर्त्तीर्विधातवक्त्रेष्विव वेदविद्याः ॥
- 30 एतस्मै हरिमेधसे वसुमतीविश्रान्तविद्याधरीविभ्रान्तिन्दधतीः
शतं सहि ददौ शारङ्गशावीटशः ।
दग्धस्योग्रदृशा दृशैव दिशतीः कामस्य संजीवनं काराः कामिजनस्य
सङ्गमगृहं सङ्गीतकेलिश्रियाः ॥
- 31 प्रासादाग्रे स खलु जगतः पुण्यपण्यैकवीथीं चक्रे वापीं मरकत
मणिस्रच्छसुच्छायतोयां ।
मध्ये वारिप्रतिघातिमिषाद्दर्शयन्तीव तादृग्विष्णोर्धामाङ्गुतमहि
कलस्याधिकं या चकासे ॥
- 32 व्यधित विबुधधाम्नः सीम्नि संसारसारं स खलु निखिलनेत्रा
नन्दनिस्सन्दपात्रं ।

त्रिभुवनजयखिन्नानङ्गविश्रामधाम प्रथितरतिविभावस्थानमुद्यान
रत्नं ॥

33 तस्यैव प्रियसुहृदा द्विजाग्रिमेष श्रीवाचस्पतिकविना कृता
प्रशस्तिः ।

आकल्पं शुचिसदने समूर्त्तिकीर्त्तिरधास्तां जघनमियं सुवर्णकाञ्ची ॥

.....*

34 प्रशस्तिरियं बालबलभीभुजङ्गापरनाम्नो भट्टश्रीभवदेवस्य ॥

Translation.

Om! Salutation to (KRISHNA) the adorable son of VASU-DEVA !

Verse 1. May HARI (VISHNU), who, desiring to embrace (SARASWATI) with his body stamped with the impress of the leaves†, of the jar-like bosom of the warmly embraced KAMALÁ (LAKSHMI), was bantered thus, "Perish not this fresh garland of flowers," by the goddess of speech (SARASWATI)—prosper you!—2. O goddess of speech! since thou hast been daily worshipped from my childhood, let it now yield fruit—be propitious! I am speaking the excellent words of the praises of the family of BHATTA BHAVA-DEVA. Take thy station on the tip of my tongue!—3. The learned bráhmans who were born in the exalted and continuous line of SÁVARNA MUNI, a hundred villages, lands held by royal grants, became their abode. Among these truly *Siddhala* alone, the famed, the chief of villages, the decoration of the beauty of Rárhá‡, is the ornament of the regions of *Aryá-varṭta*||, (the holy land.)—4. Here this family§ hath happily spread, with excellent sprouts, honored, with firmly compacted roots, whose glory is promoted by bráhmans¶, arrived at the extre-

* From hence to the end of the 24th line there are evident traces of letters, but they are illegible. (See opening remark: the missing sentence consists of nothing more than the month (illegible) and the year, "Samvat 32" distinctly visible.—ED.)

† Alluding to the ancient Hindu custom of the females adorning the face and person with colored pigments, such as saffron, sandal, &c.

‡ That part of Bengal which lies on the west of the Ganges.

§ Literally, the country where holy men are constantly produced; bounded, according to MANU, by the eastern and western seas, and by the mountains Himálaya and Vindhya, (MANU, C. ii. v. 22nd.)

|| The word वंश also means "the bamboo," and the poet throughout this verse uses such double-meaning epithets as may be made applicable to both senses.

¶ In applying this epithet to the bamboo, the word द्विज literally, "twice-born" would be rendered "birds"—first born in the egg, and secondly produced from it.

mities of the branches (of the vedas) loudly reciting (those scriptures), not knotty, not crooked, upright, handsome—proportioned, exalted above all.—5. BHAVA-DEVA appeared, the jewel of the crest of that line, a giver of tribute* like the sun, the producer of science and mystic formula, like BHAVA (SHIVA).—6. He was born between two brothers, an older and a younger (named) MAHÁ-DEVA and ATTAHÁSA; just as VISHNU is between BRAHMÁ and SIVA.—7. He obtained from the king of *Gaura* a grant embracing the choice land of the territory set apart at *Srī Hastinī (Hastinī-purī)*. Moreover, he saw his eight sons, RATHÁNGA, &c. like the eight forms of MAHESHA† (SIVA).—8. FROM RATHÁNGA sprung ATYANGA, like the moon from the ocean of milk, the delighter of men, the abode of the undivided god of love. His son BUDHA, the lustre of whose wisdom was resplendent, was as famed in every quarter by the name of SPHURITA, as the planet Saumya (Budha or Mercury).—9. From him arose SRĪ A'DI-DEVA, the sole seed of the prosperity of his family, the principal root of the great tree of unfeigned manliness, like the god A'DI-MU'RTTI (VISHNU), wishing with a mortal form to adorn this earth.—10. Who was minister during the stability of the fortune of the kingdom of the rája of *Banga*, the pure, the great counsellor, the great minister, the profitable, the disposer of peace and war.—11. He (A'DI-DEVA) begat a son, GOVARDHANA, conceived in the womb of DEVAKI', equal to (preserve) the stability of the world, wedded to SARASWATI', wonderful in the worlds.—12. Who advancing in fields of battle, and in the assemblies of the possessors of divine truth, both his territories and the art of speaking, by the deeds of his arm and the cunning of his eloquence, made his name justly applicable to his character in two senses of the word‡.—13. He took to wife SÁNGOKÁ, the venerable, the virtuous daughter of a bráhmaṇ of the race of Vandyá Ghatíṣ, the jewel of women.—14. In her, announcing his

* The word here rendered "tribute" looks most like किलश in the original; but that reading makes no sense. It is here translated as if it were कलस्य for करस्य (र and ल being interchangeable), which word meaning also a "ray of light," the resemblance to the sun may, by a play on the word, be established. It appeared, on first observation, not unlike कैलास; but on considering the metre, this reading proved inadmissible. The measure of this verse is the Aryá of 30 instants in the first line and 27 in the second.

† The eight forms of MAHESHA, viz. water, fire, the instituter of a sacrifice, the moon, the sun, the ether, the earth and air, are enumerated in the introductory benediction of the Drama of SAKUNTALA.

‡ Govardhana means "increaser of land or territory," and "promoter of speech or eloquence." गौ "the earth, speech," and वर्द्धन "increasing."

§ Name of a family of Rádhīya bráhmaṇs.

own birth by a vision, was conceived, by this Kashyapa of the earth, the god HARI, in the form of SRI' BHAVA-DEVA, on whose hands are beheld marked two lotuses, within whose breast the *kaustubha* (the jewel of KRISHNA) is, from outward appearances, known to be deposited.—15. By whom, placing LAKSHMI' in his right shoulder, the earth in the force of his counsel, SARASWATI' in the tip of his tongue, the bird Nágántaka (Garuda) in the body of his enemies, and the discus in the soles of his feet; these his symbols were, for the sake of concealing that divine and primeval body, perverted.—16. Assisted by the force of whose (BHAVA-DEVA's) counsel, that conqueror in virtue HARI VARMA-DEVA long exercised dominion. In the reign of his son also, LAKSHMI', like a firm Kalpalatá (a tree of heaven, bestowing all desires) followed the path of his (BHAVA-DEVA's) policy.—17. Of whom the worthy, the high-minded, the possessor of KAMALÁ, the pardoning, the sea of virtues, the undisturbed in mind, and ocean-souled—the qualities, such as rectitude, greatness, kindness, purity, depth, firmness, and determination, almost transcending the bounds of speech, greatly delight (the world).—18. Who is proclaimed to be *Parameshwar* (the Supreme Lord) on earth, by the following assembly of the *Shaktis* (energies of the Deity), viz. his fame (a form of) the great GAURI'—his arm graceful as a climbing plant, and terrific with the quivering sword (a form of) CHANDI', delighting in war and smeared with the blood of enemies in the field of battle—his person (a form of) the great LAKSHMI'—and lastly, that naturally graceful eloquence.—19. Before whose most powerful bráhmínical splendor the faint solar luminary enacts the part of a young fire-fly. Before the high aspiring body of whose fame the snowy mountain (the Himálaya) is truly as high as one's knee.—20. This personage, a specimen of those who know the nity of BRAHMA, a creator of wonders in already existing science, an evident discerner of the profound virtues of the words of philosophers, a sage, another jar-born saint (AGASTYA MUNI) to the sea* of Buddhism, skilful at annihilating the opinions of heretics and cavillers, displays the qualities of SARVAJNA (the omniscient†) upon earth.—21. Who, seeing across the ocean of spiritual knowledge, mystical learning, and the science of computation; being a producer of all wonders in worldly sciences; and being himself the inventor and promulgator of a new system of Astrology, has evidently become another VARA'HA‡.—22. He, by composing a proper and excellent

* Alluding to the legend of AGASTYA MUNI's swallowing the ocean in a fit of anger. AGASTYA is said to have been born in a water-jar.

† Also a title of the deified saints of the Buddhists.

‡ VARA'HA MIHIRA, a great astronomer, and one of the nine learned men styled नवरत्न "the nine gems."

work, rendered blind (useless) in the paths of the science of law, the old expositions; and also, by making clear with his commentary the verses of the Munis on that subject, entirely removed every doubt regarding lawful actions.—23.* By whom truly that aid in spiritual knowledge, in which a thousand arguments like the rays of the sun endure not darkness, was composed according to the rules prescribed by the learned. What need of many words! this sage is unrivalled in the following branches of knowledge; viz. the *Sáma-veda* to its utmost extent, all the arts of poets, sacred science, the *Ayur-veda* (science of medicine), the *Astra-veda* (science of arms), &c.—24. By whom, indeed, is his name *BÁLA-VALABHI'-BHUJANGA*† not honored?—it is with extasy heard, described, and proclaimed even by *Mímáṅsá* (sacred science) herself.—25. Who (*BHAVA-DEVA*), bringing to life a whole world by means of his mystical incantations, which resemble the morning clang of instruments breaking the night of unconsciousness caused by the bite of a fanged and rabid serpent, has become an unequalled *MRITYUNJAYA* (conqueror of Death, a name of *SIVA*), in sporting with poison, another *NÍLA-KANTHA*, (blue-throat‡, another epithet of *SIVA*).—26. By whom was formed in *Rarha*, in the arid boundaries of land bordering a village situated on a wild road, a reservoir of water which fills the water-jars, the desires and the minds of travellers sunk in fatigue; and of which the beds of lotuses are abandoned by the bees fascinated by the reflected shadows of the lotus-like faces of beauteous damsels who have bathed on its banks.—27. By him this stone (image of) the adorable *NÁRÁYANA* (*VISHNU*), by which the face of the earth is adorned, was fixed like a bridge for crossing the ocean of material existence. Which, being the dark-blue frontal mark of the moon-like face of the eastern quarter, is to the earth (as it were) a lotus used sportively for an ear-ring, the *Párijáta* § tree of this world, the bestower of completion of designs.—28. By him was erected this splendid temple, whose glory is exalted in emulation of the mountain of (*SIVA*), the destroyer of *Tripura*, and which like *HARI* (*VISHNU*), is distinguished by the mark called

* This verse is in the *Sragdhará* metre of 21 syllables in each páda or half line.

† The meaning of this surname is not apparent: it is compounded of three words, बाल "young, ignorant," &c. वलभी "the frame of a thatch, a turret;" also I believe the name of a city and a dynasty, and भुजङ्ग "a snake, an adulterer."

‡ *SIVA* is said to have swallowed the poison produced among other things, at the churning of the ocean; the only effect it produced on the god was a blue mark on his throat, whence this epithet. This verse celebrates *BHAVA-DEVA*'s excellent knowledge of antidotes.

§ The name of a celestial tree which grants all desires.

*Srī Vatsa**, and by the trembling discus. Which (temple) having overcome *Vaijayanta*, (the palace of *INDRA*,) waves out a flag in the sky. Beholding the beauty of which temple, *GIRISHA* (*SIVA*) no longer desires *KAILĀSA*.—29. He (*BHAVA-DEVA*), placed in that house of *VISHNU*, in the innermost sanctuaries, the images of *NĀRĀYANA*, *ANANTA*, and *NRISINGHA*, as the vedas in the mouths of *BRAHMĀ*.—30. He gave to this (temple, an) offering to *HARI†* a hundred damsels, with eyes like those of a young deer, who are mistaken for celestial dancers sojourning on the earth, who with a glance restore to life *KĀMA*, although he was burnt up by *UGRA-DRIK*, (fiery-eye, i. e. *SIVA*,) who are the prison-houses of the impassioned, the abode of melody, dalliance, and beauty united.—31. He truly made in front of the temple a pool, which is a market of purity alone, the water of which is pure and sparkling as an emerald, which, displaying under the form of a reflection in the water, the exact scene of *VISHNU*'s deceiving the *Hydra‡*, appears most splendid.—32. He on all sides of the temple formed an excellent garden, the quintessence of the earth, the vessel into which the delight of all eyes distils, the place of repose of *ANANGA* (the god of Love) wearied with the conquest of the three worlds.—33. This eulogium was composed by his dear friend, the learned *SRI' VĀCHASPATI*, the chief of *Bráhmans*. Let this golden zone, like a beautiful form of fame, remain on the loins of this pure edifice until the destruction of the world!

..... [in the year 32.]

This eulogium is upon *BHATTA SRI' BHAVA-DEVA*, surnamed *BĀLA-VALABHI'-BHUJANGA*.

* A peculiar mark on the breast of *VISHNU*, said to be a curl of hair twisting to the right.

† The compound word *हरिमेघसे* here translated "an offering to *HARI*," has given much trouble; and the sense at last adopted does not appear very satisfactory. The word *मेघस्* is not found in Dictionaries: it is substituted by a grammatical rule, for *मेघा* "understanding;" but only when compounded with a negative, or with *दुः*, *सु*, *मन्*, or *चल्य*. The meaning here given is thus arrived at, the word *मेघ* is given in *WILSON* as meaning "an offering," and is derived from the root *मेघ्* by adding the affix *अप्*: it has therefore been supposed that this word *मेघस्* may be formed by affixing *असुन्* to the same root, with the same meaning.

‡ Referring to the story of *KRISHNA*'s conquering the one hundred and ten-headed serpent *Kāliya* in the river *Yamunā* near *Vrindāvana*.

III.—On the explanation of the Indo-Scythic legends of the Bactrian Coins, through the medium of the Celtic. By Dr. J. SWINEY.

[In a letter to the Editor.]

Aware how much the Journal has forwarded the successful pursuit of Indian antiquities, I might have chosen to address its Editor solely on that account. I deem him, however, to have further claim to precedence in having been the first to decipher the ancient character, so recently brought to light by the discovery of what have been styled Bactrian coins, for want, perhaps, of a better name. I shall proceed then to offer you a few observations upon two or three of these coins, the legends of which have as yet been unexplained—premissing, that in a path so untrodden, every new aid, from whatever source it may proceed, (providing it have antiquity on its side,) must be welcomed in the pursuit.

It is with this view, if I mistake not, that you have sought to adapt the Zend to the Sanscrit of the present day—and that the Parisian Secretary has chosen for his guide the ancient Syriac, to which, in all probability, he had recourse, from the frequent occurrence of the word *Malka**, both on coins and inscriptions. The key I propose is the Celtic—a name given to a language now only known by its remains, preserved to us by various *hordes* of men settled in Europe, it is true, but for whom the learned of every age have claimed an eastern descent and high antiquity. What advantages the Celtic may possess over the Zend and the Syriac in unravelling Bactrian terms, remains to be proved: it will be admitted, however, by the examples I am about to give, that something more than a verbal coincidence of terms has been ascertained. The first coin I shall notice, and which indeed was used as the touchstone of the system, (after reading that the word “Pisergird” was as good Welch as it was Persian,) is that of Colonel STACY, given in your November number:—on this is seen the usual device of the god *Lunus*, with the Greek letters ΔΟΗ, instead of ΜΑΟ: it was immediately discovered that the Welch dictionary gave *Lloer*, the moon; which led to a reference to the great “Vocabulaire Celtique of M. BULLET,” which gave *Loer Lune*; and on consulting what the author says on the value of letters in Celtic, the following notice was found:—“R placée ou onise indifferemment à la fin du mot—exemple: Dwr = Dw = eau.” All this proving satisfactory, another legend was tried by the same test—namely, the “ΟΑΔΟ” upon coins of the naked running figure, so common among the Bactrian series. Here the Celtique renders *Oad* and *oed*,—âge, temps, adding *ætas*, Latin; giving every reason to believe

* On the contrary, M. JACQUET reads the word for king, not *malka*, but *mîrva*, the equivalent in Syriac, we believe, for “dominus.”—ED.

that the figure is no other than *Kronos*. Hitherto, if I mistake not, this device has been identified with Hercules in his character of "The Sun" running his course; and thus we find in ANTHON'S edition of LEMPRIERE'S Classical Dictionary, Art. Hercules, Bactrian and Parthian coins expressly mentioned having figures of the Phœnician Hercules*: the word "fugiens" of VIRGIL'S description of the god *Saturnus*, might have, however, suggested him as the personage meant in his character of *Kronos*; and, indeed, the former is to be met with in some illustrations of the god, much in the same nude and running attitude as that in which he is seen upon the coins. VIRGIL says—

" Primus ab æthereo venit Saturnus Olympo,
Arma Jovis fugiens et regnis exul adeptis."

On looking over the Vocabulary given in the Zendavesta, "*Ved-na*" is given as *Pehlevi* for tems—this seems the same (perhaps in the genitive case) as "oed" of the Celtic Vocabulaire.

Another remark may be considered to be called for on this coin. M. BURNOUF, as noticed already in the Journal, alludes to the peculiarity of the Zend words ending with "O" final; and thus it may be observed that the OAD of the book becomes OADO on the coin, as NAN of the book becomes NANO of the coin.

Again, the legend that runs through whole series of these old coins is RAO NANO RAO, accompanied, I believe, in some instances, with a Greek translation on the opposite side of the coin of ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ†. This left no doubt of the meaning of the phrase, being equivalent to *Malkan Malka* of another series—still the word NANA was not made out very satisfactorily; whereas the Celtique Vocabulary has "*na, nan* article du genitif;" thus word for word—king of kings. With regard to *Rao*, there is no difficulty—"Ro-ard" being given as "supreme souverain" precisely in the same sense as "*ard*" is found on the coins—ex. gr. "*ard-okro*," "sol supremus‡."

* The remark in LEMPRIERE doubtless alludes to the reverse of the coins of EUTHYDEMUS. Those of HERMÆUS and some other of the new names would equally bear out the expression, without including the OADO reverse, which certainly has as much analogy to *Buddha* or *Woden*, as OKPO has to *Arka*, &c.—ED.

† The title *rao* is substituted for *basileus*, and *rao nano rao* for *basileus basileôn*, on precisely similar coins, but we do not know of any instance in which they occur together.—ED.

‡ The explanation of *nano*, as a genitive affix before *rao*, is perhaps the most plausible of these Celtic elucidations—but the Vocabulaire does not call *nan* the *particle* of the genitive, but the *article* of that case; and we find in "PRITCHARD'S Celtic nations" in the declension of *an bard*, a poet, the nominative plural, *na baird*; genitive, *na mbhard*; dative, *o na barduibh*, &c. So that, in the Erse dialect at least, *na* is the general article in the plural, as is *an* in the singular. See observations on this word in Vol. III. p. 448.—ED.

The $\sigma\omega\tau\eta\rho$ of the coins, according to my book, should be *kada-dao*, signifying *Sauveur, Défenseur*, which accords well with קדדא .

The $\mu\epsilon\gamma\alpha\sigma$ seems to read *rarao*—that is, *tres grand*, from “*ra*—grand,” duplicated, and therefore perhaps the vowel is repeated ΡΥΓΥΥΓ ; or “*ra*, grand,” and “*re*, pour le superlatif;” thus, “*bras élevé*;” “*re-bras, fort élevé*.” Vide *Celt. Vocab.*

Another coincidence and to conclude. A coin of Lysias has on the Greek side ΑΝΙΚΗΤΟΣ —literally, “*not-vanquished*.” On the opposite side of the coin is the native legend which you have rendered “*opatilo*,” for which the *Vocabulaire* gives—“*ap, sans*”—“*atela, combat, confusion*.”

The instances of “*ap*” being used for “*sans*,” or for the Greek “*a privatif*” in the Celtic, are numerous, and the *Zendavesta* gives the following three instances: “*apos—aposan*—(*ap*—*sans*; *os*—*petite*)—*qui est sans enfans*;” “*apetiare*—*sans mal*;” “*apotkar*—*qui ne parle pas, (ap—sans; padkar—paroles)*.” Vide *Pehlevi Vocab.*

All this may appear to us very new, shut out as we are from access to numerous glosses to be found mouldering on the shelves of every national library in Europe; but we shall cease to be surprised when we read that the author professes to have drawn his *material* from such sources as “*les restes de l’ancien Indien, de l’ancien Persan, &c.*”

It remains, however, to be regretted that the vocabulary is not easier of being consulted by the reader, and still more that no references are given to individual passages; for in one place, at least, he cites a word as belonging to the *Bactrian* language.

NOTE.—We have with pleasure inserted Dr. SWINEY’S Celtic illustrations, although we hardly think it was necessary to go so far north for an explanation of our Indo-Scythic legends, when the Sanscrit, in most cases at least, furnishes as close an agreement: and the connection of the Celtic with the latter has been traced by philologists with as much plausibility, as the more obvious derivation from the same source of the Greek, Latin, Teutonic and other European fundamental languages. Had Dr. SWINEY fallen upon the following passage in GRIFFITH’S *Animal Kingdom*, order *Ruminantia*, page 411, which has by chance just met our eye, he might have found in it a wonderful support of his theory:—“The cow is repeatedly a mystical type of the earth in the systems of ancient Greece, or a form of BHAVĀNI with the Hindus, and still more marked in the *lunar arkite* worship of the Celtic nation.” The coincidence here with the reverses on the inferior Kadphises type of coins which bear the taurine figure surmounted by the word OKPO , is sufficiently striking: yet we cannot imagine in it more than an accidental similarity of words—so far, indeed, not fortuit-

ous that the Celtic worship of the celestial bodies may be traced in a general way to the ancient Mythos of Central Asia, whence the people themselves may have originally emanated, but from which they had been disconnected for ages anterior to the time of JULIUS CÆSAR, and à fortiori long before our Indo-Scythic coins were struck.

The legend of Col. STACY'S last coin, ΛΟΗ, has given rise to a variety of conjectures:—the possessor supposes it a date,—but the only way in which it could be thus read, as Capt. CUNNINGHAM points out, is by supposing Λ to stand for *λυκαβαντος*, as on the Egyptian coins, Λ ΟΗ anno 78. For ourselves we still maintain that, as the obverse legend is evidently a mere jumble of the title ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ, there can be no hesitation in pronouncing ΛΟΗ a similar jumble of ΗΛΙΟΣ, rather than of any other of the known reverses, which, it will be remembered, do not appear until the Greek titles of the king give way to the indigenous appellation RAO. On receiving the *Journal des Savans*, we searched through M. RAOUL DE ROCHETTE'S papers on the *Honighberger* and *Ventura* collections with avidity, to see how he would read these curious legends, and were at first mortified by finding that he dismissed them as “letters apparently resembling Greek”—then, as fit topics for “*Indianistes*—being out of the department of his own studies.” In the number, for *Mai* 1836, however, we are happy to find that our own readings of *Okro*, *nanaia*, *mao*, &c. are confirmed by the learned German Professor of *Gottingen*, M. K. OTT. MÜLLER; to whom M. R. DE ROCHETTE awards the merit of reading a gold coin of *Kanerkes* in the French cabinet which he had left untouched;—“le revers, ΑΡΔΟΚΡΟ semble ne pouvoir s'expliquer, comme l'a proposé aussi tres ingénieusement M. K. OTT. MÜLLER, que par le mot Sanscrit ΟΚΡΟ combiné avec une seconde racine Sanskrite.”—ED.

IV.—*On three new Genera or sub-Genera of long-legged Thrushes, with descriptions of their species.* By B. H. HODGSON, Esq.

MERULIDÆ, CRATEROPODINÆ; *Aipunemia*? *Tesia*, nobis; *Tee-see* of the Nipalese.

Bill shorter than the head, straight, and with the nares* perfectly Cincline. Wings very feeble, and quite round. Tail nearly obsolete.

Rictus and capistrum smooth. Tarsi very high, slender, and quite smooth. Toes and nails *meruline*, slender, and compressed.

1st Species. *Cyaniventer*; blue-bellied, nobis. Above, medial grass green: below, slaty blue: bill, horn color: legs, fleshy grey: iris, brown: $3\frac{3}{4}$ inches long by $5\frac{1}{2}$ wide: weight $\frac{1}{3}$ of an oz.: sexes alike.

* In *Aipunemia* the covering of the nares is corneous: in *Tesia*, it is pure membrane. In the former, again, the tarsal scales are apparent; whilst in *Tesia* there is no trace of them.

2nd Species. *Flaviventer*; yellow-bellied, nobis. Above, grass green: below, full yellow: mask covering the face and ears, bright chestnut: bill, dusky above, fleshy below: legs, fleshy white: iris brown: size of the last: sexes alike.

3rd Species. *Albiventer*, nobis. Above, olive brown, dotted with buff: below, white, each plume being largely marked in the centre with dusky-brown: bill, dusky horn with a fleshy base: legs, brown: iris, brown: $4\frac{1}{2}$ inches by $7\frac{1}{2}$, and $\frac{3}{4}$ oz. in weight: tarsi rather lower and stouter, and bill rather stouter than in the preceding species, which are the typical ones.

4th Species. *Rufiventer*, nobis. Above, olive brown, as in the last, but less dotted: below, rufous picked out with dusky, as in *Albiventer*: legs, fleshy brown: bill dusky horn: iris, brown: size of the last, from which this species differs only (but permanently) by the ruddy ground color of the inferior surface.

Remark. These little birds have a very strong muscular stomach, and feed on hard grass seeds and hard minute insects. They procure their food entirely on the ground, and live in woods exclusively. They are almost equally common in the central and lower hilly regions: in the northern I have not found them.

CRATEROPODINÆ. Genus *Larvivora*, nobis.

Bill equal to head, subcylindric, straight and slender; at base rather broader than high, and gradually narrowed; ridge considerably keeled: upper mandible rather longer than the lower, and vaguely inclined and notched.

Rictal and nuchal hairs small and feeble. Wings, tail, and nares as in *Turdus*, but the two former somewhat less developed.

Tarsi elevate, slender, nearly smooth: toes, all of them, compressed; lateral fore and hind sub-equal; exterior fore connected to the first joint. Nails, moderately arched and rather acute.

1st Species. *L. Cyana*; blue *Larvivora*, nobis. Above, full blue: below, bright rusty, paler and albescent towards the vent and under tail-coverts: thighs, blue with white cross bars: cheeks, black: superciliary line, white: bill, dusky horn: legs, fleshy grey: iris, brown: 6 inches long by $9\frac{1}{4}$ wide, and $1\frac{1}{4}$ oz. in weight: sexes alike.

2nd Species. *L. Brunnea*; brown *Larvivora*, nobis. Above, brown: cheeks and sides, rusty: below, white: bill, dusky horn: legs, fleshy grey: iris, brown: sexes alike: size of the last.

Remark. These birds differ conspicuously from *Tesia* (SWAINSON'S *Aipunemia*?) by stronger wings and tail, by their less cylindric and less entire bill, and by their open meruline nares. They have much of the aspect of the *Sylviadæ*, but are essentially terrestrial. Do they not constitute the oriental type of the American *Drymophila*? and do

they not serve, in a remarkable manner, to connect the *Merulinæ* and the *Crateropodinæ*?

They are common to all the three regions of *Nipál*, and never quit the woods. They perch freely, but are usually on the ground. Their stomachs are feebler than in *Tesia*, and they do not take seeds or gravel. From the number of insect nests and larvæ found in their stomachs, I have called the genus *Larvivora*.

CRATEROPODINÆ. *Paludicola*, nobis. *Syimy*a of the Nipalese. Habitat central and lower regions.

Character:—Bill scarcely longer than the head, stout, hard, entire, much higher than broad, sub-arcuated throughout, with both tips inclined downwards and obtuse. Tomiæ, beyond the nares, deeply locked, trenchant and scarp internally.

Nares, meruline, but nearly or wholly hid by setaceous plumuli. Rictus, smooth. Frontal and chin plumes rather rigid. Wings, feeble, rounded and bowed; primaries and tertiaries equal; fifth and sixth quills longest and sub-equal; the three first conspicuously gradated. Tail short, square, and bowed, not feeble. Tarsi very elevate, slender, nearly or quite smooth. Toes compressed and meruline; outer fore connected beyond the joint, hind sub-equal to inner fore, considerably less than the central fore, not depressed. Nails straightened and blunt; hind largest. Knees nude, tibiæ plumose.

Remark. These birds never quit the forests, and usually adhere to those parts of them which abound in thick low brush-wood. They seldom perch save at night, and then only on low bushes. They feed principally in swamps and rills, upon the hard insects proper to such sites. Berries and seeds they seldom or never touch: and the sand occasionally met with in their stomachs is probably taken unintentionally. Their tongue and intestines resemble those of the Thrushes proper, with only a considerable increase in the length of the intestinal canal, which is sometimes 30 inches long. They fly so ill and are so stupid that I have seen them taken by a single man. They are much allied in manners and in structure to the *Myotherine Pittæ*, but they appear to me, upon the whole, to belong to the *Crateropodinæ**, though I apprehend that the details of that sub-family call for much further investigation on the part of its able institutor, who, I am persuaded, will discover that *Cinclosoma* and *Pomatorhinus* constitute large and independent groups or genera, distinguished by marked peculiarities both of habits and of structure.

Species new. *Paludicola Nipalensis*, nobis.

Body, wings and tail, superiorly dark obscure green, shaded with

* RICHARDSON'S North American birds, page 156. At page 488, Mr. SWAINSON is disposed to make *Cinclosoma* and *Pomatorhinus* sub-genera of *Crateropus*!

rufous brown : quills and tail feathers more saturate : wing coverts with large buff drops at the end of each plume : remiges and rectrices, internally dusky : the 4 or 5 first quills of the wings paled at their bases on the inner web : lining of wings, mixed buff and dusky : forehead, face, neck, and body, below, brownish rusty, picked out on the under tail-coverts with blackish, and deepened on the thighs and sides into fulvous brown : nape and dorsal neck, dull azure or verditer blue : chin frequently hoary : behind each ear a triangular black spot, united anteally by a gular band of the same hue : iris, brown : bill, dusky above, fleshy towards the commissure and inferior base : legs, ruddy flesh color : nails, horny white : size 9 to 10 inches by 15, and 5 to 6 oz. in weight.

N. B. Sexes essentially alike, but the female paler ; her gular band broken or interrupted ; and her wing coverts frequently unspotted. The males, too, want these spots, except when they are in full plumage : the bright brownish rusty hue of their forehead cheeks, and body below, fades to a fulvous or dull fawn color in winter : and the tail coverts are then immaculate. The lower belly and vent are paler than the breast, and frequently albescent.

V.—Description of three new species of Woodpecker.

By B. H. HODGSON, Esq.

HUMBOLDT asserts and SWAINSON repeats that there are no such forests, or native tenants of the forest, as those of the New World. But he who has tracked the wild elephant and bison through the colossal avenues of the Saul (*Shorea Robusta*), or the *Ghóral* and *Jháral**, through those of the *Deodár* (*Pinus Deodara*) of India, may perhaps be permitted to doubt this. If the forests of America are 'lofty and interminable,' so are those of the sub-Himálayan mountains, from the skirts of the Gangetic plain to the very edge of the perennial snows. The zoological treasures of India may be less celebrated than those of America—*curent quia vate sacro*—but it is by no means probable that they are less worthy of celebration. SWAINSON'S observation, above referred to, has reference more especially to the Woodpecker tribe ; in respect to which he avers that the pre-eminently typical species are exclusively American. But this is a mistake : the sub-Himálayan forests afford several such species, one of which rather exceeds, than falls short of, the famous ivory bill (*Picus principalis*) of America. My collection of Nipalese Woodpeckers already embraces 16 species, which exhibit every known modification of form. I propose at present to describe the most powerful and the

* *Capra Quadrirammiss*, nobis, and antelope *Goral*.—HARDWICKE.

feeblest of these, as well as one intermediate species; beginning with the largest and ending with the least.

PICIANÆ. Genus *Picus Auctorum*, sub-genus *Picus*, SWAINSON. Species new. *Picus Sultaneus*, Royal Indian Woodpecker, nobis.

This noble bird, facile princeps among the oriental Woodpeckers, and second to none in the world in size, strength, and typical attributes, is 15 inches long by 23 wide, with a weight of from 8 to 9 ounces.

Form. Bill $2\frac{1}{2}$ inches long, a third longer than the head; at base higher than broad; the ridges sharp and straight; the sides strongly angulated; the tip perfectly wedged: extremely powerful and hard throughout: great lateral angle of the maxilla, extending centrally from the base three-fourths to the tip, where it is taken up by two smaller angles proceeding ascendantly to the cuneate point, and serving as ribs to fortify it*: lower mandible with the sides subangulated after the manner of the upper; its point similarly wedged, but with only one terminal rib instead of two. Nares, elliptic, lateral, closed superiorly by the ledge of the great lateral angle of the bill; vaguely membraned, and more or less free from the nuchal tuft of plumes: orbits, nude: head, large and broad with a pointed crest: neck, slender and uncrested: tarsi longer than the anteal, shorter than the postea, outer toe: the latter toe conspicuously the longest: the grasp extremely oblique, with the two hinder toes directed laterally outwards, and capable of being brought to the front. Talons very falcate, acute, and angulated beneath near the tips: wings, medial, reaching nearly to the centre of the tail: 5th quill longest: 4th and 6th sub-equal to it: 1st, three inches, and 2nd, one inch less the 5th: primaries plus the tertiaries, one inch. Tail, extremely strong, moderately wedged: the six central feathers with the shafts bent inwards, and the webs very spinous; the laterals similar but less strong; the tips of the whole bifurcate.

Color. Top of the head and lower back, carmine: upper back and wings, externally golden yellow: band from the eyes round the forehead, ruddy brown: neck, from the eyes, laterally, black; anteally and postea, white, with five black gular stripes on the anteal aspect: breast black with large central drops of white, more or less brunescent: rest of the body below, and lining of the wings, white, transversely barred with black: rectrices and their upper coverts, pure

* In no other species have I noticed more than one sub-terminal lateral angle; nor is there any other, with the power this possesses, of directing the whole of the toes to the front. The better to shew the pre-eminence of this species, I will add to my paper the description of another belonging to the same sub-genus. See *Pyrrhotis* in the sequel.

black : wings internally, and the primaries wholly, blackish, with 3, 4, or 5 ovoid white spots, ranged barwise across the inner webs of all the feathers :—Female, the same ; save that her cap is black, with a white drop on each plume : bill and legs slaty, with a greenish or yellowish smear : nails dusky : iris, carmine in the male, orange-red in the female : orbital skin, green in both : 15 inches long by 23 wide, and 8 to 9 oz. in weight.

N. B. The young at first resemble the female, and the males do not assume their perfect plumage till the second or third year. Black is the prevalent *under-color* of the species, and may be seen, unmixed, beneath the carmine crest of the males, and mixed with white, disposed barwise, beneath the carmine of their lower backs. This species breeds once a year, in May. It moults also but once, between June and October, both inclusive. There is another Nipalese species scarcely distinguishable from this by colors, and which has been confounded with it by those who venture to describe from one or two dried specimens. The two species differ, however, *toto cœlo* in all typical and characteristic respects.

Sub-genus *DRYOTOMUS*. Species new : *Flavivula*, yellow throat, nobis.

Form. Bill $1\frac{3}{4}$ inch, a fourth longer than the head ; at base as broad as high, and soft in the lower mandible ; the ridges scarcely straight or acute ; and the tips very imperfectly wedged : great lateral angles of the maxilla, short and raised to the level of the culmen, giving the latter towards the base of the bill a character of flatness and breadth observable in no other sub-genus : nares shaped as in the preceding, but unprotected above by a corneous ledge, and usually quite hid by the nuchal tuft : orbits, nude : head, less broad and not crested : neck fuller, shorter, and, with the nape, crested posteaally : tarsus rather longer than the anteal outer toe, which is distinctly larger than the posteaal one : the grasp almost direct ; and the two posterior toes wholly incapable of being brought to the front, or even of acting laterally : talons powerful as in the last and similarly angulated beneath : wings and tail with the general characters of the last ; only rather more elongated and the latter feebler : 5th quill longest : 1st, $3\frac{1}{4}$, and 2nd, $1\frac{1}{4}$ inches less the 5th : primaries plus tertiaries $1\frac{1}{4}$ to $1\frac{1}{2}$ inch : tail much pointed and conspicuously wedged.

Color. Above brilliant parrot-green, duller on the top of the head, and merged in brown on the forehead : back of the neck, glossy silken yellow : chin and throat, pale greenish yellow : neck, to the front and sides, black green, picked out with pure white, which co-

lor occupies the bases of the plumes: body below, slaty grey with a green smear: wings internally, and the primaries wholly, igneous cinnamon, with five or six blackish cross bars occupying both webs of the primaries, but the inner webs only of the secondaries and tertiaries: tips of the primaries, black brown: rectrices, pure black: lining of the wings, whitish with black bars—the ground color tinged with the proximate lines: the bill, white with a plumbeous base: feet, plumbeous or slaty blue: orbital skin, green: sexes alike: immature birds have the chin and throat brown like the forehead: 14 inches long by 21 wide, and 6 to 7 ounces in weight.

YUNXINÆ*.

Genus or sub-genus new. *VIVIA*, nobis. *Wee-wee* of the Nipalese.

Generic character:—

Bill shorter than the head, straight, conical and acuminate: tip of the upper mandible, sub-wedged—of the lower, pointed.

Nares rounded, and hid by the nuchal tufts. Wings to middle of tail; 1st quill and sub-bastard, 2nd long, 5th longest; all entire: primaries longer than tertiaries, $\frac{1}{4}$ inch.

Tail medial, soft, 12†, the six centrals, even: the six laterals, extremely gradated: tongue and feet *picine*; the anterior and posterior outer toes equal to each other and to the tarsus.

Species new. *V. Nipalensis*; Nipalese *Vivia*, nobis.

Form, has been accurately described in the generic character.

Color. Above, greenish yellow, darker and duller on the head, dorsal neck, and ears: below, white, tinged with yellow, and ocellated from the chin to the breast—cross-barred thence to the tail, with black: two white lines down each side the head and neck, from the bill to the shoulders, enclosing the eyes and ears between them: frontal zone, pale and yellow: rectrices, the two central, black on one web, white on the other; the four next wholly black; the rest paled on the outer webs and tips: wings, dusky brown internally, and void of bars; towards the base paled: males with a chesnut forehead, dotted with black: females with a saturate green forehead, concolorous with the upper surface of the head and neck: sexes of same size: 4 inches long by $7\frac{1}{2}$ wide, and $\frac{1}{2}$ an ounce in weight.

Remarks. These singular little birds are clearly distinguishable from the genus *Yunx* (*Auctororum*) by their *Picine* tongue and by the

* With the general reader no apology will be necessary for describing the following little bird as a Woodpecker. The *Yunxinæ* sub-family can hardly boast a generally-admitted independence.

† All the 12 are ranged in regular series, without any sign of the anomalous disposition noticeable in the extreme laterals of all the *Picianæ*.

structure of their wings, which also assimilates them with several of the smaller species of Woodpeckers. Whether they ought to be ranged under the genus *Picumus* of TEMMINCK, I have no means of ascertaining. I leave my proposed new genus or sub-genus to the discretion of the skilful, who have access to the libraries and museums of Europe.

PICIANÆ*.

Sub-genus *Picus*, SWAINSON. Species new. *Pyrrhotis*; crimson-eared, nobis.

Form. Bill two inches long, a third longer than the head: extremely powerful and hard throughout: at base higher than broad: the ridges sharp and straight: the sides strongly angulated: the tips perfectly wedged: great lateral angle of the maxilla extending centrally three-fourths to the tip, where it is taken up by a single cuneating angle: lower mandible not angulated like the upper in its body, but similarly so towards its cuneate point: nares and head as in *Sultaneus*, but the latter not crested: neck neither elongated nor slender; void of crest: tarsi sub-equal to the anteal outer toe, which is rather larger than, or equal to, the posteaal one: grasp rather oblique, the posteaal toes being directed obliquely outwards, but incapable of reversion to the front: talons powerful, but only sub-angulated beneath: wings medial, reaching to middle of tail, gradated and formed, as in *Sultaneus*: tail rather short, very moderately wedged; in structure similar to that of *Sultaneus*: orbits nude.

Color and size. Wings, lower back, and tail, dark cinnamoneous or chesnut red, transversely banded with black throughout: head, neck, and upper back, brown, merged more or less in dark vinous red; the forehead and chin paler, and greyish: the breast and body below, black brown, with narrow chesnut bars on the thigh and tail-coverts: behind each ear a brilliant crimson spot: bill, bright yellow: orbital skin, dusky green: iris, brown: legs, dark slaty, smeared with green or yellow: nails, dusky horn: sexes alike: 12 inches long by 18 wide; and 5 to 6 oz. in weight.

Remark. Though I have ranged this bird under SWAINSON'S sub-genus *Picus*, the curious reader will observe that it does not wholly answer the definition of the group. It belongs, in fact, by its bill to *Picus*—by its feet to *Chrysoptilus*: and, strictly speaking, stands midway between the two sub-genera. The two exterior toes are, as nearly as may be, equal; but the bill is neither depressed nor are the great lateral angles of the maxilla unequal. My principal motive

* See the note on *Sultaneus* for the cause of this addendum.

in adding it to this paper is (as already stated) to afford an object of comparison with the kingly species which is first described under the oriental imperial style of *Sultaneus*.

And, now that I have exceeded the limits originally proposed, I may as well add the description of another species forming a complete link between the three and four-toed *Piciana*.

Genus MALACOLOPHUS ?

Sub-genus ?

Species new. *Melanochrysos* ; golden and black Woodpecker, nobis.

Form. Bill $1\frac{1}{2}$ inches long, scarcely one-fifth longer than the head, at base as high as broad, neither compressed nor depressed ; ridge arcuated and acute, but not carinated ; great lateral angles obsolete ; tips faintly cuneated.

Nares, elliptic, void of corneous ledge above, more or less denuded of plumes. Wings medial, to middle of tail : 1st quill, sub-bastard ; 2nd, long ; 4, 5, and 6, sub-equal, and longest. Tail, medial, equally gradated throughout, straight, rather feeble ; tips of all its feathers pointed, or evanescently forked : tarsi, longer than the anteal outer toe, which is conspicuously larger than the postal : the inner, small but perfect, and furnished with a perfect nail : grasp not oblique : orbits nude : head with a full soft crest, more or less pointed at the occiput : neck simple*.

Color and size. Chin, throat, abdominal aspect of the neck and the breast, black : neck, posteally, black : lores, cheeks and lateral aspect of neck, white : ears, black, in a broad stripe from the eyes : upper back and wings, golden yellow : shoulders, dusky : lower back, tail-coverts above, and tail, black : wings internally, the same : body below, white : cap, in the males, bright sanguine ; in the females, black, with white streaks : bill, slaty black : iris, brown : orbital skin, dusky green : legs, clearish green : talons, dusky : $11\frac{1}{2}$ to 12 inches by 18 : $4\frac{1}{2}$ ounces.

Remarks. This species in size, colors and characters, bears much resemblance to the *Picus Shorii* of GOULD'S work, in which, however, the fourth digit is nailless and obsolete, the rump, crimson, and the neck and belly, as in our *Sultaneus*.

I have other species serving to unite the 3 and 4-toed Woodpeckers by an insensible gradation. These species are closely connected with the well known *Picus Viridis* and *Picus Canus* of Europe.

* The tips of the lesser quills offer no peculiarity of structure, either in this or the preceding species.

VI.—Indication of a new Genus of Insectorial Birds.

By B. H. HODGSON, Esq.

CONIROSTRES. LAMPROTORINÆ? DENTIROSTRES, CRATEROPODINÆ?
LEIOTRICHANÆ?

Genus CUTIA, nobis.

In the suite of specimens of Nipalese birds forwarded by me, three years ago, to the Zoological Society of London, were three or four of the subject of the present article.

They were marked in the imperfect list obligingly returned to me, as a "new form nearly allied to *Pastor*." But, if *Pastor Roseus* be the type of that genus, I confess I cannot perceive much resemblance to our bird: and, if a strong arched compressed bill, united with gradated wings and very strong feet, be the marks of the *Crateropodinae*, to that sub-family, I conceive our bird should be referred, unless the sub-scansorial and *quasi-Parian* character of its feet do not rather affine it with the *Leiotrichanæ*. And, certainly, its wings, tail, and feet have no small resemblance to those of *Pteruthius*, though its bill be totally different and formed very much upon the *Timalian* model.

The true station of our bird can only be determined by a more accurate knowledge of its habits and economy, than I now possess, applied to better and fuller information than I have any means of here acquiring, respecting the *general* affinities and analogies of the *Insectores*.

What adds to my difficulty in attempting to class the bird according to the *Sturnine* relations suggested to me, is, that the so called *Pastor Trallii* (very abundant in *Nipal*) is, in my judgment, a typical *Oriole*, whilst the *Lamprotornis Spilopterus* (also common here) is not easily referable to TEMMINCK's genus *Lamprotornis*, and belongs, I shrewdly suspect, to the *Brachypodinæ* of SWAINSON. Without further preface I shall now attempt to characterise our bird as the type of a new genus, but with the necessary prolixity resulting from hesitation as to its family and sub-family.

CUTIA, nobis.

Khatya (quasi-pedatus) of the Nipalese.

Bill, equal to the head, or less, at base as high as broad, arched and compressed throughout, strong, obtuse, and nearly or quite entire. Culmen considerably carinated between the nares, but not much produced among the soft and simple frontal plumes.

Tomia, erect, rather obtuse, and near to the palate. Nares, rather forward, implumose, large, the aperture broad-lunate, lateral, shaded above by a largish nude sub-arched scale. Gape, moderate and nearly

smooth. Plumage, soft, simple and discomposed. Wings and tail, short and firm. 5th alar quill usually longest; two first strongly, two next trivially, and both sub-equally, gradated up to the 5th. Tail, quadrate, firm, with very long coverts. Tarsi, sub-elevate, very strong, and nearly smooth. Anteal toes basally nect, the outer as far as the joint; lateral fores sub-equal; central not elongated; hind very large, sub-depressed, and exceeding either of the lateral fores. Nails compressed, large, strong, falcate and acute. Tongue, simple, sub-cartilaginous, with bifid tip. Type, *Cútia Nipalensis*, nobis. Nos. 254-5 of the specimens and drawings apud Zoological Society of London. In order to illustrate the affinities of our bird, I proceed to compare it with *Pastor Roseus* and with *Lamprotornis Spilopterus*.

In *Pastor Roseus*, as in all the typical *Pastors* in my possession, the bill is longer than the head, straight, conico-cylindric, and softish towards the base. Its base is angulated, and the plumes of its head carried forwards to the anteal end of the nares, are pointed, glossed and elongated. The ample and pointed wings have the 1st quill rudimentary, the 2nd long, and sub-equal to the 3rd, which is always the longest. The tarsi are considerably lengthened and heavily scaled. The toes have the laterals equal; the hind rather less, and the central fore considerably elongated. The outer fore toe has a basal connexion; the inner none. The nails, though large and by no means blunt, are neither curved nor acuminate in any special or significant degree. In *Lamprotornis Spilopterus* the wings are precisely similar to those of *Pastor Roseus*. The bill of *Lamprotornis*—which is scarcely longer than the head, uniformly sub-arched and not angulated—*so far* agrees with that of our *Cútia*. But its base is depressed, whilst forwards it has only a slight compression and sub-cylindric outline. It is, besides, sharply pointed, saliently notched, and its trenchant fine tomiae are deeply interlocked.

Carry these peculiarities a little further and you have the bill of *Chloropsis*, the birds of which genus further agree with *Lamprotornis Spilopterus* almost entirely in the nature of their food, and the structure of their tongues and stomachs.

On the other hand, the harder, blunter, more solid and compressed bill of *Cútia*, united as it is with a simple tongue, a subtritulating stomach, and a diet consisting of hard seeds and hard insects, would affine our bird to *Pomatorhinus* and its allies, but for the scansorial feet. In *Lamprotornis Spilopterus* the nares are still round and short, though there be somewhat more approach to a nude, membranous tect than in *Pastor Roseus*. In *Lamprotornis*, the lower tarsi, rather than the structure of the feet, seem to indicate less terrestrial habits

than those of *Cútia* : for, in the former, the anteal digits are freer, and the lateral ones shorter in proportion to the central and to the hind one, than in the latter ; whilst the nails have rather less than more of the *Parian* attributes. Lastly, the pointed and burnished feathers on the head of *Lamprotornis Spilopterus* are wholly wanting in our bird. In *Spilopterus* they seem to intimate relationship with the *Stares*. Nor is the intimation unrequied by those who claim such fellowship for this bird, in as much as its habits and essential structure savour more contrast than similitude with the *Sturnidæ*.

As for our *Cútia*, amidst all its anomalies (so to speak, with reference to one's own ignorance) of structure, there is certainly something *Sturnine* in its aspect ; and by certain peculiarities of its feet and wings, as well as by its variegated plumage, it bears some resemblance to *Sturnella*, a genus " leading directly to the true *Starlings*."

Species new. *C. Nipalensis*, nobis ; Nipalese *Cútia*, nobis. Habitat, central and northern regions ; adheres to the forests, feeding on hard insects and on seeds. Gregarious and arboreal.

Color and size. Male, above, brilliant rusty yellow, with jet-black remiges and rectrices. Cap, and a large apert central portion of the wings slaty ; the former confined all round, by a black band proceeding through the eyes from the nares. Below, from chin to legs, pure white ; from legs inclusively to tail-coverts, flavescent : the flanks broadly cross-barred with black : a spot of the same hue at the base of the maxilla : most at the alar quills and the lateral tail feathers, tipped with white : lining of wings, and wings internally and basally, albescent : bill, above blackish, below plumbeous : legs orange yellow : iris, brown : 7 to $7\frac{1}{2}$ inches long by $10\frac{1}{3}$ to 11 wide : bill $\frac{1}{8}$: tarsus $1\frac{3}{8}$: central toe $\frac{1}{16}$, hind $\frac{9}{16}$. The female is a trifle less in size. Her mantle is variegated by longitudinal black drops : and her cheek band is brown instead of black, especially on the ears.

VII.—*Nest of the Bengal Vulture, (Vultur Bengalensis;) with observations on the power of scent ascribed to the Vulture tribe. By Lieutenant J. HUTTON.*

On the 8th December, 1833, I found four vultures' nests in a large *barkat* tree, near the village of *Futtehgurh*, on the road from *Nee-much* to *Mhow*. These nests were of great thickness, and were constructed of small branches and twigs, mixed with dead leaves ; three of them contained each one egg, of a large size, and quite white. The fourth nest was occupied by a solitary young one, just hatched, and

thinly clad, or rather sprinkled over with a short down of an ashy color. Near this tree were two others, on each of which were three or four similar nests, but as they were difficult of access, I did not ascertain their contents.

Deeming the little one too young to take from the nest, I ordered my servant, who had climbed the tree, to leave it there, intending to take it, if not flown, on my return from *Mhow*, whither I was then proceeding. On the 21st of the same month I returned to the spot, and finding the bird still in the nest, made a prize of it and bore it away to my tent. The old vultures offered not the slightest resistance, but sat stupidly watching the robbery we were committing.

On offering the young vulture raw meat, it fed greedily, and gave me reason to believe that it would be no difficult task to rear it, since it proved willing enough to feed.

I was much astonished to see the little progress it had made in growth and plumage, since I discovered it, a period of thirteen days, in which time most of the smaller birds would have been nearly ready to leave the nest; whilst my gluttonous friend had not even the smallest symptom of a feather. The whole bird was clothed with a light cinereous down, except on the neck, where it was partly bare, being in patches. The lore and round the eyes naked and livid; the eyes small and irides dark; cere and beak, black; legs and feet leaden black; claws black. It had no power to stand on its legs, owing to the great weight of the body.

After feeding, or when hungry, it emitted a fractious peevish cry, like a sleepy child.

I placed it in a basket with some straw to keep it warm, and thus took it to *Neemuch*.

When about three weeks old, the pale cinereous down with which it had at first been clothed, gave place to a down of a much darker color, the head alone retaining its first clothing. At a month old, or rather thirty-three days from the time I first discovered it, the prime and secondary quills, greater wing coverts, scapulars, tail feathers, and a few feathers on the upper part of the back near the neck, made their appearance, but their growth was extremely slow, being very little advanced four or five days after. The bird was still unable to stand, for, although his strength had increased, the weight and increase of bulk of the body still rendered his legs of no use. Once or twice on placing him on the ground, he swallowed several large stones, about the size of a sparrow's egg, and these I found voided three days afterwards in the basket which served him for a nest. In a week's time the prime

quills grew to an inch and a half long. The size of the body increased rapidly, and the bird supported itself on the knee joints, but could not yet stand at forty days old.

Its appetite became now no easy matter to satisfy, a pound of flesh at a meal being thought nothing of. At six weeks old the ruff round the neck was clearly discernible, and the quills of the wings were about three inches long. The top and hind part of the head began also to lose the soft thick down which had hitherto clothed it, and presented a naked bluish skin.

On the 20th January it stood upright for the first time, being about forty-three or forty-four days old.

At two months old, the back, shoulders, wings, lower part of the neck above, rump and tail were clothed with dark brown feathers, approaching to black; the thighs were still only clothed with down, as also the sides and belly. The ruff was thickly formed and composed of very narrow brown feathers; the breast partly clothed with narrow pendant feathers of a lighter brown and with the shaft whitish. Head closely covered with a fine soft woolly down of an ashy whiteness, which had again sprung up. Crop covered with pale brownish down. Legs greyish lead color.

It was now so tame, as to become a perfect nuisance; for no sooner did it see any person, than it ran towards them screaming and flapping its long wings, with the head bent low, and neck drawn in towards the body, often pecking at the feet of the person thus intercepted. Many were the thumps and kicks the luckless bird received from the servants, who most cordially detested him, as their bare feet were often assailed and cut with the sharp blows of his curved beak. Still, through good and evil, he remained with us, roosting at night sometimes on the top of my bungalow, and at other times wandering to some of the neighbors. Often did I wish that he would take unto himself the wings of the morn and flee away; for he never entered the house without making it so offensive as to be scarcely bearable. Yet, having brought the evil upon myself, I was bound to bear it with patience, and at length when I almost began to despair of ever getting rid of him, he deserted his usual haunts on the 10th May, being then five months old, and, I am happy to say, I saw him no more.

I once shot a pair of adult birds, male and female, which were sitting with many others of the same kind, seemingly half gorged, over the carcass of a dead cow;—the ball passed through the head of the female, into the neck of the male, and thus afforded me a good opportunity of examining them together.

The plumage of the male is dark brown above, deepest on the wings and tail; under parts of a lighter shade of brown, the shaft and middle of each feather being dashed with a dirty white, or buff colored streak;—head and neck of a dirty livid color, and destitute of feathers, but scattered over with short hairs; at the bottom of the neck a ruff of long, narrow and pointed feathers; the crop covered over with short brown feathers, and slightly overhanging the breast. Bill strong and black at the end, but paler at the base; nostrils lateral; irides dark hazel; legs thick and blackish; claws black and strong and not much hooked.

Length 2 feet $7\frac{1}{2}$ inches; breadth 7 feet $5\frac{1}{2}$ inches.

The female in length was 3 feet 1 inch, and in breadth 7 feet $7\frac{1}{2}$ inches;—the plumage above is much lighter, being of a buff or pale fawn-colored brown; under parts of a dirty white; irides dark hazel; bill strong and dark at the end, but of a greenish livid color at the base;—the claws are longer and more hooked than in the male.

The native name is *Giddh*.

This is the Bengal Vulture (*Vultur Bengalensis*) of authors;—it is gregarious to the full extent of the word, not only flying and feeding in flocks, but also building its nests in company.

The male bird above described, rather exceeds the size given by LATHAM and Colonel SYKES.

In LOUDON'S Magazine of Natural History is a long dispute between Mr. WATERTON, the author of "Wanderings in South America," and AUDUBON, the American Ornithologist, respecting the remarkable powers of smell so long ascribed to the Vulture tribe. The latter gentleman, backed by several friends, maintains that sight alone conducts the Vulture to his prey, and he relates a number of experiments which he tried in *America* relative to this subject. Mr. WATERTON, on the other hand, ridicules these experiments, and brings forward much to invalidate them, and in favor of the old notion. It had perhaps, however, been better if these gentlemen had borne in mind the saying "*medio tutissimus ibis*," and allowed due weight to both these senses combined.

The view which either party takes of the subject, will be gathered best from Mr. WATERTON'S own words, which I transcribe from the 39th No. of the Magazine:—

"The American philosophers have signed a solemn certificate that they feel assured that the two species of vultures which inhabit the United States, are guided to their food altogether through their sense of sight and not that of smell:—I, (WATERTON) on the contrary, say

that all vultures can find their food through the medium of their olfactory nerves, though it be imperceptible to the eye."

This is said with reference to an article in No. 38 of the same Magazine, signed by several scientific men in *America*, stating it to be their opinion, "that they (the vultures) devour fresh as well as putrid food of any kind, and that they are guided to their food altogether through their sense of sight and not that of smell."

On this subject it appears to me that the parties, like the disputants in the fable of the Chamelion, "both are right and both are wrong," as I think may be shewn from the arguments on either side, and also from an experiment I made myself at *Neemuch*. Mr. WATERTON affirms that the vultures of the United States never feed on other than putrid carcasses, while his opponents declare that they feed alike on fresh and putrid substances.

Our Indian Vultures decidedly feed as readily on a recently deceased animal, as on a putrifying one, and I have repeatedly seen flocks of the Bengal vultures at *Neemuch* squabbling over the carcass of a camel or an ox, which had not been dead more than a few hours, and which was as yet perfectly fresh.

Sight alone in these cases guided them to their prey. The young bird above described was always fed with fresh raw meat.

This does not, however, by any means prove that the vulture is deficient in the powers of smelling carrion. The effluvium from any decomposing body, being, as Mr. WATERTON observes, lighter than common air, naturally rises on high, and a flock of vultures soaring above, and coming in contact with a tainted current, receive warning that a banquet awaits them on earth, causing them to search about in every direction for the desired object, in the same manner as a dog would do.

It often happens that an animal dies in some thick covert where the vultures cannot discover it, until the vapour arising from the decomposing body warns them that food is near, and excites them to a closer search. Thus, having caught the tainted current of air, the bird wheels round and round in decreasing circles as the scent grows stronger, until at length it alights on some tall tree near the spot, or perhaps on the ground, casting its piercing glances on all sides, in the hope of discovering the savoury morsel, which, if perceived, is instantly attacked "tooth and nail."

It may very possibly happen, however, that the vulture after having followed the attractive odour to the regions of earth, may yet be unable to discover the object from which it proceeds, and after having in vain endeavoured to bless his longing sight, and still more longing

appetite with the rich and tantalizing morsel, be compelled reluctantly to quit the perfumed spot.

Thus the faculties of sight and scent are both necessary to enable the vulture to discover its prey,—sometimes singly, as when it is fresh,—sometimes combined, as when it is decayed and hidden.

Thus I should pronounce the power of scent in these birds, although strongly developed, to be in aid of sight, and it may be deemed a secondary and auxiliary means of discovering food.

The following experiment I tried at *Neemuch*. A recently killed dog was encased in a coarse canvas bag, and hung up in a large *barkat* tree, so that no bird soaring above could possibly see it. On the morning after, I went to reconnoitre, and saw a number of vultures sitting on the upper branches of the tree, and on some of the neighboring ones, of which there might be about a dozen. These birds were not, however, attracted to the spot by any effluvium from the dog, as it was still quite fresh,—but they had resorted there to roost the evening before, and had not as yet aroused themselves from their lethargy.

On the fourth day I again repaired to the spot and found about twenty vultures sitting on the tree, all of them being on that side, directly over the body of the dog, which had now become very offensive;—there were also several vultures soaring aloft in wide circles above the tree, one of them every now and then descending and alighting. Not one bird was to be seen on any of the neighboring trees,—nor on any part of the chosen tree, excepting that immediately over the carcass. That these birds were not roosting, is proved from the hour of the day being eleven;—and besides on the morning that I saw them at roost, they were scattered over the whole top of the tree, which is an enormous *barkat* or *banyan* tree,—as well as on some of the adjoining ones, while on this forenoon they were confined to the tree, and also the one portion of the tree in which the putrid carcass of the dog was concealed.

I therefore conjecture that the smell of the decomposing body had mounted on high, and the vultures wheeling above had come in contact with the savoury vapour, soaring round in wide circles in hope of espying the object from which the scent that told of prey proceeded.

Seeing nothing below, but still smelling the putrid carcass, they had gradually narrowed their flight, until they alighted on the identical tree in which lay the hidden banquet. Thus I conclude that the powers of scent in these birds has been ascribed to them, in truth, and that it is this faculty which gives them *notice* of the prey awaiting them and induces them to search with keen and eager glances over

the earth, until the *eye* rests on the precise spot. It is therefore their acute faculty of scent, combined with their keenness of vision, which directs the vulture tribe to their prey.

Thus I think I have shewn that the three points in dispute, respecting the vultures of the United States are not applicable either to the Indian or Bengal vultures*, both of which are gregarious, both feed on fresh as well as putrid substances, and both discover their prey by the *combined* faculties of scent and sight.

VIII.—Notes taken at the post-mortem examination of a Musk Deer.

By A. CAMPBELL, Esq., Nipál Residency, June 24, 1834.

[Addressed to J. T. PEARSON, Esq., Curator, Asiatic Society.]

I have the pleasure to send you, for the museum of the Asiatic Society, a very perfect skin (head and feet included) of the Thibetan Musk Deer, as well as of the *Wah* of the Bhotiahs, *Ailurus Fulgens* of the zoologists, and hope they may reach you in the same perfect state they are now in. The musk has been a full grown male, and a large one too. The natives of *Nipál* make a marked distinction between the *Trans-Himálayan* animal, and the *Cacharya* one, or that which inhabits the country along the foot of the snows on this side of the great snowy mountains; ranking the musk of the former much higher than that of the latter variety. The specimen now sent is of the *Trans-Himálayan* animal. The notes appended are of the *Cis-Himálayan* one. Through the kindness of Mr. Hodgson, I have had opportunities of examining specimens of both animals, but without observing any important difference between them. The musk pod of the Thibetan animal is covered with short close hair, while that of the *Cachar* one is clothed with very long hair, and hangs more loosely from the belly. I believe the musk of both, when unadulterated, to be much alike, and that the superficial value attached to the Thibetan animals' produce, arises from the circumstance of its being less frequently impregnated with foreign substances, for the purpose of increasing its weight and bulk, than the *Cachar* article. The pods, as they are found in the market, whether *Thibetan* or *Cacharya*, vary a good deal in appearance, and hence the general division of them above noted is subdivided: the thinner skinned ones being called *Kúghazí*, or papery, the thicker skinned ones *Ganauta*.

* Indian Vulture, *Vultur Indicus*.—Bengal Vulture, *Vultur Bengalensis*. Of the habits of the Pondicherry Vulture (*V. Ponticerianus*) I know little. They are generally seen singly or in pairs,—never I believe in flocks. (?) Do they in the East, hold the place and habits of the king of the Vultures of the West?

You will readily observe that the anatomical notes are very incomplete, and that they have been copied "in the rough" as made at the dissection; but their accuracy, and the interesting nature of the animal they appertain to, may nevertheless render them acceptable to the curious in such matters.

A musk deer (*Cacharya*) male, mature.—Length from vent to occiput 2 feet $2\frac{1}{2}$ inches: occiput to snout 7 inches: tail a mere rudiment, $1\frac{1}{2}$ inch long, terminating in a tuft of hair like a shaving brush. The anus surrounded by a ring of soft hairs, the skin under which is perforated by innumerable small pores secreting an abominably offensive stuff; pressure brings out the stuff liquid, like melted honey. Scrotum round, and naked; space between it and anus naked, also for a small space towards the groins. Penis $3\frac{1}{4}$ inches long, terminating in the musk bag, which is in this animal globular, a little flattened on the surface towards the ground— $1\frac{1}{2}$ inch in diameter either way, and thickly covered with long hairs; it is pendent from the belly, not like the *Bhotiah* musk deer examined last year, in which it was bound up to the abdominal parietes. At the centre of the musk bag is a circular hole, large enough to admit a lead pencil; its edges are naked and moist. At the posterior margin of this hole is the orifice of the penis. The penis is, in fact, terminated by the musk bag, which might be called correctly the preputial bag. The bag is composed of two distinct membranes, apparently unconnected with one another, except at the margin of the circular external hole. The external membrane is vascular and strong, the internal one is silvery, shining, and not vascular: it resembles the retina of the eye, as it is seen on dissecting the eye from without. The inner membrane which forms the cavity of the bag is lined internally with a few scattered hairs. The musk is soft, of a reddish brown color, and granular: its appearance and consistence is precisely that of moist ginger-bread. Around the margin of the hole of the bag is a circle of small glandular-looking bodies, more numerous towards the side of the penis, (the posterior margin.) The flesh of the animal is dark red, and *not of musky smell*. Bladder very large, 6 inches long, $2\frac{1}{2}$ broad. The liver flat, one lobe only, with a cleft in its margin at the attachment of the central ligament. Length of liver from left to right $6\frac{1}{2}$ inches, from anterior to inferior aspect $3\frac{1}{2}$ inches thick: at its extreme right one inch, at its extreme left half an inch. Gall-bladder oval-shaped, pendulous from right half of liver, three inches long, $2\frac{1}{2}$ in diameter. The gall duct penetrates the intestine $2\frac{1}{2}$ inches from the pylorus of last or fourth stomach. Spleen thin, four inches long, $2\frac{1}{2}$ broad. Kidneys unilobed, not sul-

cated on their surface, $1\frac{1}{2}$ inch long, one inch broad. Stomachs four, in all respects ruminant. The large bag, or first stomach, mean length 8 inches, breadth 6 inches. Entire length of intestines 40 feet. From the pylorus to cæcum 28 feet, from cæcum to vent 12 feet. One cæcum 13 inches long, and 2 inches in diameter. The small intestines, which are round and thread-like, as well as the larger ones, are very thin coated; average diameter of large ones near the rectum 2 inches. Right lung the larger, three-lobed; left lung three-lobed also, a small centre lobe of which lies below the apex of the heart. Heart 3 inches long, 2 in diameter.

Another Musk Deer, May 28, 1835.

No branches from the arch of the aorta. The ascending aorta one inch from the arch, gives off, *first*, a common trunk, immediately divided into the left subclavian and left vertebral—*second*, $2\frac{1}{2}$ inches higher: it (the aorta) divides into two branches; viz. the right cephalic, and the common trunk of the right subclavian and right vertebral.

The os hyoides is formed of a small centre body and two horns, each of the two pieces having a posteriorly directed process for insertion into the head of the thyroid cartilage. The cornua are articulated with a small process of the temporal bone below the meatus auditorius. The larynx one inch long. The trachea to the first branch given off, (which is on the right side) eight inches long: one inch further on it divides at once into four branches, the first branch goes to the highest of the four lobes of the right lung. The cartilaginous rings of the trachea incomplete behind.

Dimensions of the "Wah" of the Bhotiahs.

Ailurus Fulgens, or male, mature.

From snout to tip of tail, $37\frac{1}{4}$ inches.

From the sole of fore foot to superior crest of scapula, $9\frac{1}{2}$ ins.

From foramen magnum to snout, taken with callipers, $5\frac{1}{4}$ inches.

Length of tail 6 inches.

From first cervical vertebra, to first vertebra of the tail, $16\frac{3}{4}$ inches.

Greatest circumference of head round the angle of the jaw, 10 ins.

Length of humerus, 5 inches.

Length of fore-arm, $4\frac{1}{2}$ inches.

From wrist to tip of middle finger, $2\frac{3}{4}$ inches.

Length of femur, $4\frac{1}{2}$ inches.

Length of tibia, and fibula, $5\frac{1}{2}$ inches.

From heel to tip of middle toe, $4\frac{1}{2}$ inches.

Girth round lower part of thorax, 12 inches.

From anterior edge of the orbit to tip of snout, $1\frac{1}{2}$ inches.

From external opening of the ear to the tip of the nose, $3\frac{1}{4}$ ins.

IX.—*Some account of the Wars between Burmah and China, together with the journals and routes of three different Embassies sent to Peking by the King of Ava; taken from Burmese documents. By Lieutenant-Colonel H. BURNEY, Resident in Ava.*

The chronicles of the kings of *Prome*, *Pagan*, and *Ava*, which are comprised in 38 volumes, and brought down to the year 1823, contain accounts of several disputes and wars between those sovereigns and the emperors of *China*. *Tagaung*, the original seat of empire on the *Eráwadi*, is said to have been destroyed by the Tartars and Chinese before the birth of Christ. In the reign of ΠΗΥΥ'-zô-dí, the third king of *Pagan*, who reigned between A. D. 166 and 241, the Chinese are said to have invaded his kingdom with an immense army, over which that king obtained a great victory at a place called *Kó-thăm-bí*; but neither the date nor the cause of this war is given. The 42nd king of *Pagan*, ANÔRA-THÁ MENG:-zô, who reigned between A. D. 1017 and 1059, invaded *China*,—in what year is not mentioned,—for the purpose of obtaining possession of one of GAUDAMA's teeth; which is said, however, to have refused to quit *China*. This king had a meeting with the emperor of *China*, and the two sovereigns lived together for three months, but at what place is not mentioned. During ANÔRA-THÁ-zô's residence in *China*, the emperor daily supplied him with food dressed in various gold and silver vessels, which, on the departure of the king, he is said to have delivered to the emperor of *China's* religious teacher, with directions to dress food in them daily, and make offerings of it to GAUDAMA's tooth. This proceeding induced many succeeding emperors of *China* to demand the presentation of the same kind of vessels from the kings of *Pagan* and *Ava*, as tokens of their tributary subjection to *China*. In the year 1281, during the reign of NARA-THI-HA-PADE', the 52nd king of *Pagan*, the emperor of *China* sent a mission to demand such gold and silver vessels as tribute; but the king having put to death the whole of the mission, a powerful Chinese army invaded the kingdom of *Pagan*, took the capital in 1284, and followed the king, who had fled to *Bassein*, as far as a place on the *Eráwadi* below *Prome* called *Taroup-mó*, or Chinese point, which is still to be seen. The Chinese army was then obliged to retire in consequence of a want of supplies; but in the year 1300, KYÔ-zuá, the son of the above-mentioned king of *Pagan*, having been treacherously delivered by his queen into the hands of three noblemen, brothers, who resided at *Myen-zain*, a town lying to the southward of *Ava*, and who forced the king to become a priest and assumed the sovereignty themselves, another Chinese

army came down and invested *Myen-zain*, for the purpose of assisting and re-establishing the king *KYÔ-ZUÁ*. The rebel nobles applied for advice to a priest, who recommended them, apparently as a taunt, to consult tumblers and rope-dancers. Some of that profession were, however, sent for, and they, whilst exhibiting their feats before the three nobles, repeated as customary words of no meaning, a sentence like the following: "There can be no dispute when no matter for dispute remains." The nobles seized upon these words, and applying them to their own case, observed, If king *KYÔ-ZUÁ* is killed, the royal line, which the Chinese have come to restore, will be extinct. Accordingly, they cut off the king's head and showed it to the Chinese, who then proposed to retire, if the nobles would send some presents to their emperor. The nobles agreed, but upon condition that the Chinese army should first dig a canal; and the Chinese generals, to shew the immense numbers of their army, dug in one day, between sunrise and sunset, a canal 4900 cubits long, 14 broad and 14 deep, which canal near *Myen-zain* is still in existence*. The Burmese chronicles further state, that the little pieces of skin, which the spades and other instruments the Chinese used when digging this canal had peeled off their hands and feet, being afterwards collected, were found to measure ten baskets full, well pressed down! In the reign of king *KYÔ-ZUÁ*, the nine Shan towns on the frontiers of *China*, *Maing-mó*, *Hô-thá*, *La-tha*, &c. are said to have been separated from the empire of *Pagan*.

In the year 1412, during the reign of *MEN-GAUNG*, the first king of *Ava*, the Shan chief of *Thein-ní*, whose father had been defeated and killed that year when marching with a force to attack *Ava*, invited the Chinese to come and aid him against the Burmese, whilst they were besieging the city of *Thein-ní*. The king of *Ava's* son, who commanded the Burmese army, hearing of the approach of the Chinese, advanced and lay in wait for them in a wood, from which, as soon as the Chinese came up, the Burmese sallied forth and attacked them, and destroyed nearly the whole of their army. In the following year, during the same king of *Ava's* reign, and whilst almost the whole of the Burmese army were absent engaged in a war with the Talains in lower *Pegu*, another Chinese army entered the kingdom of *Ava*, and actually invested the capital, demanding the liberation of the families of two Shan chiefs, the lords or governors of *Maun-toun* and *Mó-kay*. These chiefs having committed some aggression near *Myedu*, a town in the king of *Ava's* dominions,

* It is called *Theng-dué-myaung*, and communicates with the *Zô* river, and is used for the irrigation of paddy lands.

a Burmese army had gone and attacked and defeated them. They had escaped into *China*, but their families had been captured and brought to *Ava*. The king of *Ava* refused to surrender the families of the chiefs, and the Chinese general, after besieging *Ava* for a month, found his army so much distressed from want of provisions, that he was induced to send in to the king a proposition, to have the dispute between the two nations decided by single combat between two horsemen, one to be selected on either side. The king agreed, and selected as his champion a Talain prisoner named THA-MEIN-PARAN. The combat took place outside of *Ava* in view of the Chinese army and of the inhabitants of *Ava* who lined its walls. The Talain killed the Chinese, and, decapitating him, carried the head to the king. The Chinese army then raised the siege, and retreated into *China*, without the families of the Shan chiefs.

In the year 1442, during the reign of BHUREN-NARAPADI, also called DU-PA-YÖUN-DAY-AKA, king of *Ava*, the Chinese again sent a mission to demand vessels of gold and silver, which they declared ANÔRA-T'HÁ-ZÔ, king of *Pagan*, had presented as tribute. On the king refusing, the Chinese again invaded the kingdom in the year 1443, and now demanded, that THÓ-NGAN-BUÁ, the Shan chief of *Mô-gaung*, should be surrendered to them. This person, together with an extensive kingdom belonging to him, had been conquered by the Burmese in 1442, and the Chinese, who styled him the chief of *Maing-mô*, apparently from the circumstance of a territory of that name on the *Shue-li* river having been comprised within his dominions, are stated to have been at war with him for several years, when the Burmese conquered him. The king of *Ava* advanced with a strong force above *Ava* to oppose the Chinese, and drove them back to *Mô-wún**. The Chinese again invaded *Ava* in the year 1445, and the king again proceeded up the *Eráwadi* to oppose them with a large force; but before the two armies met, some of the Burmese officers persuaded their king, that as the Chinese would never desist invading his dominions until THÓ-NGAN-BUÁ was surrendered to them, it would be better to comply with their wishes. The king then returned to *Ava* with his army, and on the Chinese following and investing the city, he agreed to surrender THÓ-NGAN-BUÁ, but upon condition that the Chinese army should first go and bring under subjection *Ya-mî-theng*, a town lying to the southward of *Ava*, which was then in a state of rebellion. The Chinese consented, and after taking *Ya-mî-theng* and delivering it over to a Burmese force which had accompanied them, they returned to *Ava*, when THÓ-NGAN-BUÁ

* Chinese, *Long-tchuen*.

killed himself by poison. The king, however, sent his body to the Chinese, who are said, after embowelling it and putting a spit through it and roasting it dry, to have taken it with them to *China*.

In the same king of *Ava's* reign, in the year 1449, the Chinese made an unsuccessful attempt to take possession of *Mō:-gaung* and *Mō:-nhyin*, which were at that time considered as portions of the Burmese Empire, and the king is said to have made a very handsome present in silver to the then Tsô:-BWAH of *Mō:-gaung* named THÓ-KYEIN-BUÁ, and his younger brother THÓ-POUT-BUÁ, for defeating the Chinese invading army.

In the year 1477, in the reign of MAHÁ-THI'-HA-THU'-YA, king of *Ava*, a Talain champion who had lately received the title of THA-MEIN-PARAN, offered, if his master the king of *Pegu* would entrust him with 40,000 men and a favorite elephant, to march beyond *Ava* to *Khan-tí* on the frontiers of *China*, and there set up an iron post as the boundary of the Talain empire. The king of *Pegu* acquiesced, and THA-MEIN-PARAN succeeded in reaching *Khan-tí* and marking the boundary; but on his return towards *Pegu*, he was attacked near *Ya-nù-theng* by a Burmese force, defeated and taken prisoner to *Ava*. The emperor of *China*, as soon as he heard of THA-MEIN-PARAN's proceeding, sent a force to remove the boundary mark, and the Chinese general, after effecting this object, sent a mission to the king of *Ava*, to demand gold and silver cooking vessels as before. The king refused, but agreed, on a proposition again made by the Chinese, that the right of *China* to those tributary tokens should be decided by a single combat between two horsemen, one to be selected by either nation. The king accordingly selected as his champion the Talain prisoner, THA-MEIN-PARAN, who defeated the Chinese champion, and the Chinese army again retreated to *China*. A strong suspicion as to the veracity of the Burmese historian will be excited, when it is known that not only this dispute also between *China* and *Ava* was decided by single combat, but the name and description of the Burmese champion were the same on this occasion as in that before related, in the annals of the king MEN:-GAUNG the first.

In the year 1562, TSHEN-BYU'-MYÁ-YEN, (lord of many white elephants,) the great king of *Pegu*, after conquering *Ava*, *Mō:-gaung*, *Zenmay*, *Thein-ní*, &c. sent a large army to the frontiers of *China*, and took possession of the nine Shan towns (*Kó-Shan-pyi* or *Kó-pyi-daung*), *Maing-mó**, *Tsi-guen*, *Hó-thá*, *Lá-thá*, *Mó-ná*, *Tsan-dá*, *Mó:-wun*,

* The Shans, who use the Burmese character, write *Maing*, but pronounce the combination *Múng*, which is their term for a town and province. The Burmese, hence, derive the words which they apply to Shan towns, *Main*, *Maing*, and *Mo*.

Kaing:-mah; and *Maing:-Lyín* or *Maing:-Lyì*, all of which, with the exception of *Kaing-mah*, are now, and apparently were at that time, under the dominion of *China*. The chief of *Mó:-meit*, then subject to *Pegu*, had complained, that the inhabitants of those nine Shan towns had committed some aggression on his territory, and the emperor of *China*, it is said, declined to assist those towns when attacked by the king of *Pegu's* army, because they had been once subject to the kings of *Pagan*. The *Pegu* army, after conquering the country, built monasteries and pagodas, and established the Buddhist religion there in its purity.

In the year 1601, NYAUNG MEN:-DARA'H, king of *Ava*, after re-building the city, and re-establishing the kingdom of *Ava*, which the Peguers had destroyed, proceeded with a large force against the Tsô:-buah of *Ba-mó**, who had taken advantage of the downfall of the extensive *Pegu* empire left by TSHEN-BYU'-MYÁ-YEN, and set himself up as an independent chief. On the approach of the king, the chief of *Ba-mó* called THÓ-TSEIN, fled to *Yunan*, and the king after taking *Ba-mó*, advanced beyond *Maing-Tein*, and sent his son, the heir apparent, close to *Yunan* with a message to the Chinese governor, threatening to attack him if he refused to surrender the fugitive chief. The governor made a reference to the emperor of *China*, who directed the chief to be surrendered, observing, that he was a subject of *Ava*, and that if the Chinese protected him their territory would be disquieted. The chief of *Ba-mó* was killed in an attempt to make his escape, but his corpse with his wife and children was sent to the prince of *Ava* by the governor of *Yunan*, and taken to the king, who appointed another Tsô:-buah of *Ba-mó*, and returned to *Ava*. Some Burmese historians state, that the fugitive chief of *Ba-mó* took poison and killed himself; but the account above given is taken from the edition of the Royal Chronicles, revised under the orders of the present king of *Ava*.

In the year 1658, during the reign of MENG:-YE'-YANDA-MEIT, also called NGA-DAT-DAYAKA, king of *Ava*, YOUN-LHI' (DU HALDE'S YONG-LIE), who had been set up as emperor in the southern provinces of *China*, having been attacked by the Tartars from the north, came down to *Mó:-myín* (Chinese *Theng-ye-chow*), and sent a message to the Tsô:-buah of *Ba-mó*, saying that he would reside at *Ba-mó* and present 100 *viss*† of gold to the king of *Ava*. The Tsô:-buah replied,

* The Burmese write this name *Ban-mó*, although they pronounce it *Ba-mó*. *Bán* in the Siamese and *Yún* Shan languages, and *Mán* in most of the other Shan dialects, means a village. Some of the Shans call this place *Man-mó*, and others *Kat-mái*.

† A *viss* is a Burmese weight equal to about 3½ English pounds.

that he dare not forward such a message to *Ava*, and YOUN-LHI' then offered to become a subject of the king of *Ava*. The Tsô:-buah made a reference to *Ava*, and the king ordered him to allow YOUN-LHI' and his followers to come in, upon condition that they relinquished their arms, and to forward them to *Ava*. YOUN-LHI' then came in with upwards of sixty of his nobles, including the governor of *Maing-Tshè* or *Yunan*, and 600 horsemen, and the whole were forwarded to *Ava*, and a spot of ground in the opposite town of *Tsagain* was allotted to them. The Burmese chronicles, however, create an impression, that YOUN-LHI' desired to carve out a new kingdom for himself in *Burmah*,—and state, that before coming into *Ba-mó*, he ordered a large army which was still under his orders, to march after him towards *Ava* by two different routes, one portion by *Mó:-meit*, and the other by *Thein-ní* and *Mó-né**. Shortly after YOUN-LHI' reached *Ava*, accounts were received that a large force belonging to him was attacking the Burmese territory near *Mó:-meit*, and when questioned by the Burmese, YOUN-LHI' said, that his generals were not aware of his having become a subject of the king of *Ava*, but that he would write a letter, by showing which the Chinese generals would desist. The king of *Ava*, however, preferred marching a force against the Chinese, who defeated it, as also a second force, and then came down and attacked the city of *Ava*. Some of the exterior fortifications were carried, and the Chinese penetrated to the southward, set fire to the monasteries and houses, and desolated a large tract of country in that direction. They then returned to the assault of the city, but were repulsed with much loss; and a heavy fire being kept up against them from the guns on the walls, which were served by a foreigner named MI-THARI' KATAN (Mr. COTTON?) and a party of native Christians, a shot killed a man of rank among the Chinese, who then retreated from before *Ava*, and proceeded towards *Mó-né* and joined the other portion of YOUN-LHI's army, which had been ordered to march down by *Thein-ní* and *Mó-né*. The king then repaired the fortifications of *Ava*, and summoned to his assistance his two brothers, the chiefs of *Taung-ngú* and *Prome*. The Chinese army when united again advanced from *Mó-né*, and succeeded, notwithstanding many attempts made by the Burmese to stop and check

* In the account of the journey of certain Chinese from *Siam* to *China* by land, given in the 1st vol. of DU HALDE, it is stated, that when the Tartars made themselves masters of *China*, "a great number of Chinese fugitives from the province of *Yunan* dispossessed their neighbours of their land, and settled there themselves, and the inhabitants of *Kamarett* (a Shan town on the frontiers of *China*) were forced to abandon their city."

them, in again investing *Ava*, which they besieged for several months. The families and property of many of the Burmese troops being outside of the city, were seized by the Chinese and maltreated or destroyed; and this circumstance, joined to a great scarcity of provisions, created much sorrow and suffering among the besieged. The troops had neither rice nor money to purchase it, and on applying to the king, he observed that they had received their grants of paddy land for their services, and that he had no rice to give them; at the same time he stationed some of his women at the palace-gate with rice for sale. The commanders of the troops at last complained against the king to his younger brother, the prince of *Prome*, who, in the month of May 1661, entered the palace, seized the king and his family, and assumed the sovereignty with the title of "*Meng-yé-gyô-gaung*." The dethroned king and his family were, shortly after, sent to the *Khyen-duen* river and drowned, and hence he is also styled in history *Ye-gyá-meng*, or the king thrown into the water. As soon as M^ENG-YE'-GYÔ-GAUNG took the reins of government, the affairs of the Burmese began to prosper. He succeeded in several successive attacks on the Chinese besieging force in different directions, and at last, as the Chinese suffered severely from these attacks and from an epidemic disease, they, one night in the month of November, 1661, evacuated their entrenchments before *Ava* and fled, leaving most of their baggage and property.

Shortly after, the king of *Ava* was advised not to allow YOUN-LHI' and all his Chinese followers to reside together at *Tsagain*, but to make the latter take the oath of allegiance and then disperse them in different parts of the country. The king ordered all the Chinese, with the exception of YOUN-LHI' and the governor of *Yunan*, to be sworn; but when the Burmese officers summoned the Chinese to attend at the pagoda where the oath was to be administered, they refused to come unless the governor of *Yunan* accompanied them. He was accordingly invited also, and on coming to the pagoda and seeing many Burmese troops in attendance, he imagined that it was their intention to put the Chinese to death. He and several of the Chinese suddenly snatched the swords out of the hands of some of the soldiers and attacked them, killing many of the Burmese; who, however, at last mounted the enclosure walls of the pagoda, and fired down upon the Chinese, until many of them were killed and the remainder submitted. But as soon as the king of *Ava* heard of this affair, he ordered the whole of the Chinese, with the exception of YOUN-LHI', to be put to death.

In the month of December, 1661, the Tartars marched down a force

of 20,000 men, under AIN-THI'-WENG, the governor of *Yunan*, which took post at *Aung-peng-lay*, and sent a mission to the king of *Ava*, demanding YOUN-LHI', and threatening, on refusal, to attack *Ava*. The king summoned a council of his officers, and observing that in the reign of king DU-PA-YÖUN-DAYAKA, THÓ-NGÁN-BUÁ had been surrendered to the Chinese, and in the reign of king NGA-DAT-DAYAKA they had been made to surrender the Tsô:-buáh of *Ba-mó* to the Burmese, gave it as his opinion, that these two precedents would justify his now delivering YOUN-LHI' to the Tartars. One of the Burmese officers expressed his entire concurrence in his Majesty's opinion; adding, that the Tartars were very powerful, and that the Burmese troops and inhabitants were suffering much from their war with the Chinese. YOUN-LHI' with his sons and grandsons were accordingly, on the 15th January, 1662, forwarded to the Tartar camp, and delivered over to the Tartar general. He, however, sent another mission to demand the person of the Chinese governor of *Yunan*, but the king of *Ava* having replied, that he had executed that governor for ingratitude and treachery, the Tartar camp broke up on the 22nd January and returned to *China*. The mutual surrender of fugitives of every description is now an established principle in the relations between the two kingdoms, and the Chinese are said to enclose carefully in a large cage and forward to *Ava*, any Burmese fugitives required by the king of *Ava*.

For a full century after YOUN-LHI' was surrendered, the Chinese and Burmese appear to have continued in peace, but at last, in the year 1765, in the reign of TSHEN-BYU'-YEN*, king of *Ava*, the second son of ALOM-PRA, another war broke out between the two nations; and as this war is the last which has occurred between them, and is often referred to by the Burmese with pride and exultation, and as its details are recorded with some minuteness, and are really calculated to give European nations a more favorable opinion of Burmese courage and military skill, I shall endeavour to make a free translation of the account of it, which is contained in the 29th and 30th volumes of the *Chronicles of the kings of Ava*.

The causes of that war are said to have been these: a Chinese named LÔLI' came to *Ba-mó* and *Kaung-toán*, with 3 or 400 oxen laden with silk and other merchandize, and applied to the *Ba-mó* authorities for permission to construct a bridge to the north of the village of *Nánbá*, in order to enable him to cross the *Tápeng* river. The *Ba-mó* officers observed, that they must submit the application to the ministers at *Ava*; and LÔLI' considering this answer as equivalent

* Lord of the white elephant, and SYMES's Shem-buan.

to a refusal, was impertinent and disrespectful. The *Ba-mó* officers suspecting from *Lôli*'s manner, language, and appearance, that he was not a common merchant, but some Chinese officer of rank, seized and sent him to *Ava* with a report of his conduct. He was confined at *Ava* in the usual manner; but after a full inquiry and examination, nothing of political importance transpiring, he was sent back to *Ba-mó*, with orders that he should be allowed to trade as usual, and that if he really wished to construct a bridge, which however appeared to the ministers to be only an idle boast on his part, he should be permitted to do so wherever he pleased. On his return to *Ba-mó*, he declared that some of his goods which had been detained there when he was sent to *Ava*, were missing or destroyed, and insisted upon compensation. The *Ba-mó* officers replied, that when he proceeded to *Ava* he took only five or six of his men, leaving all the rest in charge of his goods, and that if there really was any deficiency, he must look for it among his own people, and not among the Burmese. *Lôli* left *Ba-mó* much dissatisfied, and on his arrival at *Mó-myá*, he complained to the Chinese governor there, that Chinese traders were ill treated by the *Ba-mó* officers, who had also sought pretences for accusing him and destroying his merchandise.—He then went to *Maing-Tshá*, and preferred the same complaint to the *Tsöüntú*, or governor general, there. The *Tsöüntú* observed, that he would wait a little and see if any thing else occurred, to prove the truth of *Lôli*'s statement, that Chinese were ill used in the Burmese dominions, and not permitted to trade according to established custom. About the same time, an affray took place between some Burmese and a Chinese caravan of upwards of 2000 ponies with one *Lôta'ri* as their chief, which had come to *Kyáing-toán* and put up to the north of that town at the great bazar of *Kat-thwáh*. The Burmese had bought some goods on credit, and refused payment when demanded by the Chinese. In this affray a Chinese was killed, and the *Tsô:buáh* being absent at *Ava* at the time, *Lôta'ri* applied to the subordinate Burmese officers for justice, according to Chinese custom. These officers decided, that the man who had committed the murder should, agreeably to Burmese custom, pay the price of a life,—namely, 300 ticals. *Lôta'ri* refused money, and insisted upon the man being delivered over to the Chinese; but the Burmese officers replied that such was not their law, and then proposed that the man who had committed the murder should be put to death. *Lôta'ri* declared that this would not satisfy them, and returned to *China* with some of the principal traders, and complained to the *Tsöüntú* of *Yunan**. That officer being urged, at the same time,

* Within the last six years two cases of accidental homicide occurred at *Ava*,

by the ex-Tsô:buáh's of *Ba-mó*, *Theinní*, *Kyaíng-toñ* and other subjects of *Ava*, who had taken refuge in *China*, to invade the Burmese dominions, made such a report of the abovementioned circumstances to the emperor of *China*, as to induce his majesty to order an army to march and take possession of *Kyaíng-toñ*. The Tsöuntú put up a writing on the bank of the *Tálo* river containing these words: "Deliver a man to us in the room of our man who was killed, or we will attack you;" and shortly after, a Chinese army under a general named YÍ'N-TÁ-LÔ YE', consisting of 50,000 foot and 10,000 horse, advanced and invested *Kyaíng-toñ*. The Tsô:buáh of *Kyaíng-toñ* at the same time revolted and joined the Chinese.

On TSHEN-BYU'-YEN, the king of *Ava*, hearing of this invasion, he dispatched, on the 28th of December, 1765, eleven divisions of troops, consisting of 20,000 foot, 200 war elephants, and 2,000 horse, under general LET-WE'-WENG-DÔ-MHU' NE-MYÓ-TSI'-THU'*, to relieve *Kyaíng-toñ*. The Burmese general, on approaching that place, contrived to send in some men in disguise, and arrange a combined attack on the Chinese besieging force. Their cavalry, which was numerous, was charged by the Burmese with elephants, and the Chinese being defeated, retired to the bank of the *Tálo* river, where they took post behind some mud-works which they threw up. The Burmese general again attacked them and drove them to the bank of the *Mé-khaung* or great *Cambodia* river, where the Chinese army again took post; but they were attacked here also, their general YÍ'N-TÁ-LÔ-YE' killed, and their army driven back to *China* with much loss, and in great disorder. The Burmese army then returned to *Ava*, where they arrived on the 8th April, 1766. THÍ'N-WÍ'-BUÁH and DÔ-BAYÁ, the Tsô:buáhs of *Kyaíng-toñ* and *Lú-ta-tshay-nhít-paná* sent excuses, stating that they had been forced to join the Chinese; but the king of *Ava* disbelieved them.

In January, 1767, intelligence was received by the king of *Ava* that another Chinese army, consisting of 250,000 foot and 25,000 horse, had entered the Burmese dominions, and that on their arrival on or near *Shyí-mue-loñ* mountain, to the westward of the *Mé-khaung*

of a Burmese killing a Chinaman; and on both occasions, the Chinese residents successfully used their influence with the Burmese prince, MEN-THA-GYÍ'H, to have the Burmese executed. Nothing would satisfy the Chinese but the death of the individuals who had slain their countrymen.

* The *Let-wé-weng-dô-mhú* is the officer in command of the northern entrance to the palace. The words mean literally, "left-hand royal entrance chief," and the *dô*, or royal, is often omitted. This is SYMES'S *Ledougmee*, and "the governor of the north gate" of some of our officers.

river, a part of the army, consisting of 150,000 foot and 15,000 horse, under general YI'N-TSU'-TÁ'-YENG, was detached by the route of *Nuay-leit* near *Mó-wún* against *Bamó*. His Majesty had before, anticipating the return of the Chinese, ordered *Kaung-toñn* to be reinforced and filled with provisions, so as to enable it to hold out under its governor BALA-MEN-DEN, and now directed that two armies should proceed from *Ava*, one by water up the *Eráwadi* to *Ba-mó* under the LET-WE'-WENG-MHU', and the other by the land route to the westward of that river, under the Wún-gyíh MAHÁ-TSI'-THU', who should be joined by all the force he might find at *Mó-gaung*, *Mó-nhyen* and other towns in that neighbourhood, and then march by the *Tsandá* (*Sánta**) route, and attack the Chinese. On the 30th January, 1768, the Wún-gyíh marched with 22 divisions, consisting of 20,000 foot, 2,000 horse, and 200 war elephants; and on the 4th February, the water force, under the LET-WE'-WENG-DÔ-MHU', consisting of 11 divisions, 15,000 men, and with 300 boats carrying guns and jinjals, proceeded up the *Eráwadi* towards *Ba-mó*.

From *Shyá-mue-loñn* mountain another portion of the Chinese army, consisting of 10,000 horse and 100,000 foot, under general TSHENG-TÁ-LÔ-YE' marched by the *Tsandá* route against *Mó-gaung*. A body of 5,000 horse and 50,000 foot also took post on *Thínzá-nuay-lein* mountain, whilst the force under general YI'N-TSU'-TÁ'-YENG, when it reached *Ba-mó*, stockaded itself along the bank of the river at the spot where the mart is held.

The governor of *Kaung-toñn*, not having sufficient force to go out and attack the Chinese, employed himself in repairing the old and constructing new defences, &c. about that town. The Chinese, leaving 3,000 horse and 30,000 foot with three generals to defend their stockade at *Ba-mó*, advanced with 70,000 foot and 7,000 horse under general TSU'-TÁ'-YENG himself, and invested *Kaung-toñn*, which they assaulted with scaling ladders, axes, choppers, hooks and ropes; but the garrison, as previously arranged, met the assailants, not only with a heavy fire of cannon and musketry, but with large boilers of hot dammer and molten lead, and long pieces of heavy timber, which they let fall upon them. The Chinese were driven back with great loss, declaring that the besieged were not men, but *nats*† or inferior celestial beings. The Chinese then stockaded themselves around *Kaung-toñn* at a distance of more than 140 cubits.

The LET-WE'-WENG-MHU', or Burmese general, commanding the

* The Burmese pronounce *Tsanta* as *Tsandá*.

† The Burmese *nat* is the same as the Hindu *Devah*, and most of the Burmese *nats* are taken from the Hindu Mythology.

water force from *Ava*, on arriving at the mouth of the *Nat-myet-nhú* above the town of *Shuegú*, stopped to allow all his boats to come up, and determined, in the meantime, to throw into *Kaung-toŭn* a supply of ammunition. He selected three officers who volunteered to perform this service with three fast-pulling boats. The Chinese had only three boats, which they had constructed on their arrival at *Ba-mó*. The Burmese volunteers succeeded at daybreak one morning to pass through the Chinese besieging force stationed to the westward of *Kaung-toŭn*, and entered that town with the supply of ammunition, as well as with presents of dresses and money, which the king of *Ava* had sent to the governor. On the same night the Chinese force made another unsuccessful attack. The governor arranged with the Burmese volunteers a plan of operations,—namely, that the water force from *Ava* should first go and attack the Chinese posted at *Ba-mó*, and then fall on the rear of the force besieging *Kaung-toŭn*, from which the governor should at the same time make a sortie. The volunteers again at day-break passed through the Chinese force stationed to the north-west of the town, and rejoined the water force. The general of that force, entirely approving of the governor of *Kaung-toŭn's* plan of operations, now moved his fleet of boats close along the western bank of the *Erúwadi* to *Ba-mó*, and then, landing his soldiers under a heavy fire from his boats, he stormed and carried all the Chinese stockades. The Chinese general before *Kaung-toŭn*, *Tsu'-TÁ-YENG*, dispatched upwards of 1,000 horse in support of *Ba-mó*, but the Burmese general placed 2,000 troops to prevent the Chinese crossing the *Len-ban-gya* river, and *Tsu'-TÁ-YENG* recalled them.

The Burmese general then selected three bold and trusty men to pass through the Chinese force before *Kaung-toŭn* at night, and report to the governor the fall of *Ba-mó*, and the intention of the Burmese general to attack on a certain day the besieging force. On the appointed day, the Burmese general, leaving one division of his force at *Ba-mó*, marched with the remaining nine divisions, and attacked the Chinese before *Kaung-toŭn*, and at the same time the garrison of *Kaung-toŭn* sallied out. The Chinese, although greatly superior in numbers, were much disheartened at the loss of their stockades at *Ba-mó*, and after three days' fighting, the whole of the Chinese works before *Kaung-toŭn* also were taken. Ten of their generals and more than 10,000 men were killed, and the Chinese, after setting fire to the boats which they had been building, closed round their general *Tsu'-TÁ-YENG*, and, taking him up, fled to their force on *Thín-zá-nuay-lein* mountain. The Burmese followed the

Chinese, and, driving them out of their stockades on that mountain, pursued them as far as *Mó-wún*, taking a great quantity of arms, prisoners and horses.

The land force of 22 divisions, which marched from *Ava* under the *Wún-gyíh* *MAHÁ-TSÍ'-THU'*, having arrived at *Mó-gaung*, after repairing the defences of that town, and leaving a sufficient garrison in it, proceeded to meet the Chinese army, which was advancing by the *Santa** route. On crossing the *Kat-kyo-waing-mó*, the *Wún-gyíh* heard that the Chinese army were near *Lízó* mountain, and sent a small party in advance to reconnoitre. This party before it came to *Lízó* fell in with a party of 1,000 horse, which the Chinese general *TSHENG-TÁ-LÔ-YE* had also sent in advance, for the same purpose of reconnoitring, and the Burmese, drawing the Chinese into a narrow pass between two mountains, where their horse could not form line, attacked and defeated them. Judging, however, from this reconnoitring party only consisting of 1,000 horse, that the Chinese army must be of great force, the Burmese party stopped on the bank of the *Nán nyen*† river, and sent some scouts on in advance. These returned with the intelligence, that, on ascending the top of a mountain and climbing some trees, they had seen the Chinese army, which amounted to about 20,000 horse, and 100,000 foot. The *Wún-gyíh* then appointed six divisions of his army to proceed with celerity by the right, and six by the left, round each side of the *Lízó* mountain, whilst with the remaining ten divisions, he advanced by the centre route slowly, and occasionally firing cannon. The Chinese general hearing of the approach of the Burmese, left one-third of his army to take care of his stockades in *Lízó*, and with the remainder advanced to meet the Burmese, and took post on the eastern bank of the *Nán-nyen* river. The Burmese force under the *Wún-gyíh* came up and joined the reconnoitring party on the western bank of the same river, whilst the right and left wings, which had reached *Lízó* by marching round the rear of the Chinese main army, suddenly attacked and carried the stockades there. The Chinese in those stockades believing that the principal portion of their own force was in front of them, were completely taken by surprise, and fled and joined their army under general *TSHENG-TÁ-LÔ-YE'*. These wings of the Burmese army then fell in with another Chinese force, which was coming from *China* with a convoy of provisions to their army, and took possession

* The distance between *Mó-gaung* and *Santa* is said to be only five or six days' journey.

† For the Shan word *Nám*, water and small river, the Burmese always write *Nán*.

of the whole of the horses, mules and provisions. The Burmese generals reported their successes to their commander in chief, the Wún-gyíh, by a swift horseman, and proposed that their force should now fall on the rear of the Chinese army stationed on the east bank of the *Nán-nyen*, whilst the Wún-gyíh attacked it in front. The Wún-gyíh sent the messenger back approving of the plan of attack, and fixing the day on which it should take place. On the appointed day, the two wings of the Burmese army fell on the rear of the Chinese on two different points, whilst the Wún-gyíh crossed the *Nán-nyen* and attacked them in front with the main army. The Chinese generals seeing their army placed between two fires, retreated and took post at a spot beyond the *Lízó* mountain; but the Wún-gyíh here again attacked them, and completely routed their army, 100,000 men of which fled to *Santá* and there threw up new works. The Wún-gyíh halted his army at *Maing:lá*, in order to recruit it.

The Wún-gyíh having been taken unwell, the king of *Ava* recalled him, and appointed the LET-WE'-WENG-DÔ-MHU', who was in command of the *Ba-mó* water force, to go and relieve the Wún-gyíh, and with orders to attack and destroy the Chinese army, and then take possession of the eight Shan towns, *Hóthá*, *Láthá*, *Móná*, *Tsandá*, *Maing:mó*, *Tsi-guen*, *Kaing-máh*, and *Mó:wún*. The LET-WE'-WENG-DÔ-MHU' proceeded with his ten divisions from *Ba-mó* and joined the Wún-gyíh's army at *Maing:lá*, and soon after advanced and attacked the Chinese force at *Santá* under general TSHENG-TÁ-LÔ-YE', which had been suffering much from want of provisions, the inhabitants of the eight Shan towns having refused to comply with the Chinese general's requisitions, declaring that they were subjects of the king of *Ava*, and afraid to assist the Chinese. The Chinese were forced to retreat, and the Burmese pursued them as far as *Yunan*, taking a multitude of prisoners, horses, arms, &c. The LET-WE'-WENG-MHU' after taking possession of the eight Shan towns, which had heretofore thrown off their allegiance to *Ava*, joined another Burmese general, the Wún-gyíh MAHÁ THI'-HA-THU'RA, who had been sent with an army by the route of *Lú-ta-tshay.nhít.paná*. The two generals attacked another Chinese force of upwards of 50,000 men, which was posted on a high mountain to the north-east of *Theinní*, and one-third only of these Chinese escaped into their own country. The LET-WE'-WENG-DÔ-MHU' and the Wún-gyíh MAHÁ THI'-HA-THU'RA having completed his Majesty's service, then returned, with the prisoners, guns, &c. which they had taken, to *Ava*, where they arrived on the 21st May, 1767.

In the month of November, 1767, another Chinese army, consist-

ing of 60,000 horse and 600,000 foot, under the emperor of *China's* son-in-law, MYENG-KHOU'N-YE', and his brother TSU'-TÁ-LÔ-YE', entered the Burmese dominions by the *Theinni* route, accompanied by the ex-Tsô:buáh of that place, NGA-AUNG-DUON; 100,000 men were sent at the same time against *Ba-mó* by the *Thinzá-nuay-lein* route. On this Chinese army attacking *Theinni*, the governor and other officers evacuated the place with most of the inhabitants. The Chinese general, MYENG-KHOU'N-YE' then advanced with 30,000 horse and 300,000 foot by the *Thibó* road, whilst the other general, TSU'-TÁ-LÔ-YE', having placed a garrison with the ex-Tsô:buáh in *Theinni*, constructed to the south-west of that town, some extensive stockades, in which he took post with 20,000 horse and 200,000 foot, and made arrangements for forwarding supplies of provisions to that portion of their army which was in advance. When a report of this intelligence was received at *Ava* from the Tsô:buáh of *Thibó*, the king appointed 30 divisions, consisting of 30 war elephants, 3,000 horse and 30,000 foot, under the command of the Wún-gyíh MAHÁ TSÍ'-THU', to go and meet the Chinese army advancing by *Theinni* and *Thibó*. This army marched from *Ava* on the 24th December, 1767. Two days after, another army of 20 divisions, 200 war elephants, 2,000 horse, and 20,000 men, under the Wún-gyíh MAHÁ THÍ'HA-THU'RA, marched by *Shue-zá-yan**, up *Nyaung-ben-gyíh* and *Pó-gyó*, towards the rear of the advancing Chinese army, in order, after intercepting their communications with *Theinni* and cutting off their supplies, to attack the Chinese in the rear. Four days after a third army, consisting of 200 war elephants, 2,000 horse and 1,000 men, was detached under the command of the LET-WE'-WENG-DÔ-MHU', with orders to advance by the *Mómeit* road, and attack the rear of a Chinese force which was advancing by that road†.

On the Wún-gyíh MAHÁ TSÍ'-THU' arriving at *Ban-gyí‡* beyond *Thibó‡*, he sent forward seven divisions of his army which fell in with the Chinese and were driven back. The Wún-gyíh then advanced with his whole army, and made an attack on the outposts of the Chinese force, which were posted on *Gout§* mountain to the westward of *Thibó*, for the purpose of drawing the enemy out; but the Chinese

* A pagoda at *Paleit* a village on the *Myet-ngay*, six or seven miles to the S. E. of *Ava*.

† This is the campaign of which SYMES has given some account in p. 69, &c. of the introduction to his embassy.

‡ SYMES'S *Peengee* and *Chibo*.

§ SYMES'S *Goup-toung-taung* is a hill or mountain in Burmese, and *Gout* mountain is near *Thibó*, and not *Bamó*.

general assailing the Wún-gyíh with an immense superiority of force, the Burmese were defeated with loss, and driven back in great disorder. Three regiments were taken prisoners, being unable to extricate themselves from the midst of the Chinese army, which they had penetrated in a charge. The Wún-gyíh collected his troops and retired, thinking only of defending himself. The Chinese general pursued the Burmese with increased confidence, until the advance of his army reached *Bout-thek-kay-byen*. The Wún-gyíh sent notice to *Ava*, that every attempt which the Burmese had made to stop the Chinese had failed; that they had penetrated as far as *Bout-thek-kay-byen*; and that he had taken post at *Loñagá-byen-gyíh*. When this intelligence reached *Ava* on the 9th March, 1763, the whole of the ministers and officers were much alarmed, and advised his Majesty to fortify the city, and make preparations for receiving the Chinese, who were but two or three days' journey distant. The king abused his officers, and declared that if the Chinese came, he and the four princes, his brothers, alone would meet and destroy them.

The Wún-gyíh MAHÁ THÍ'-HA-THU'RA, who was ordered to proceed with his force to the rear of the Chinese army and cut off their supplies, sent a strong detachment in advance under the Tsit-kê-gyíh*, TEIN-GYA':MEN:GAUNG, to reconnoitre. This officer reported, that the Chinese were advancing in great force, and that he would stockade himself and oppose them. The Wún-gyíh fearing to divide his force, ordered the Tsit-kê-gyíh to fall back, but the latter, being of opinion that his retreating from the immediate vicinity of the enemy would encourage them, and make them believe that the Burmese force was inconsiderable, urged the Wún-gyíh to advance, and threw up a stockade with large bamboos. The Chinese came up at night and repeatedly attacked this stockade, but without success. As soon as the Wún-gyíh learnt the Tsit-kê-gyíh's determination to make a stand, he pushed on with the rest of his force, which accelerated its pace on hearing the sound of cannon and musketry, and the moment it reached the Tsit-kê-gyíh's stockade, attacked the Chinese with great impetuosity. The Chinese were defeated and forced to retire, and after the Burmese army had recruited a little, the Wún-gyíh followed the enemy, and attacked and drove them out of *Lá-shi* or *Lá-shyó*, where they had stockaded themselves; and again out of *Kyú Shyó*, until they took shelter in *Theinni*. The Wún-gyíh followed and took post on the bank of the *Nán-beng* or *Nán-peng* river to the south-east of *Theinni*, sending three divisions of his army under TEIN-GYA':MEN:GAUNG to the west of the *Salween* river at the *Kuon*.

* Lieutenant-General in war.

ložn-dá:gú ford, with orders to stop and cut off a convoy of provisions which was coming to the Chinese. This service was successfully performed, and the Chinese general TSU'-TA'-LÔ-YE' and other officers finding their own supplies intercepted, were unable to spare any for their army which was in advance under MYENG-KOUN-YE'. The Chinese near *Theinni* were soon in great distress from a scarcity of provisions, and too uneasy to come out and attack the Burmese. Hearing a report also, that TEINGYA':MEN:GAUNG was coming to attack them with 1,000 *musth* elephants, the whole Chinese camp were watching the clouds*. At this time, the Let-wé-weng-mhú, who had marched by the *Mó:meit* road, arrived with his ten divisions, and joined the Wún-gyih MAHA' THÍ'HA-THU'RA before *Theinni*. The Let-wé-weng-mhú proposed to the Wún-gyih to let him march on at once with 30 divisions, and fall on the rear of the Chinese advanced force near *Thibó*; but the Wún-gyih was of opinion, that the Chinese near *Theinni* should first be disposed of, and believing that the town of *Theinni*, in which Shans and Chinese were intermingled, could be more easily carried than the Chinese works outside under their general TSU'-TA'-LÔ-YE', the Wún-gyih stormed *Theinni* with three divisions of 10,000 men each, and captured it with the whole of the Chinese magazines. The ex-Tsó:buáh, several Chinese officers of rank, and as many of the garrison as could escape, fled into the Chinese entrenchments beyond the town, but nearly 2 or 3,000 Shans and Chinese were killed.

The Wún-gyih MAHA' THÍ'HA-THU'RA then made arrangements for depriving the Chinese camp of their supply of water, and posted divisions of his army in a line along the *Nán-beng* river, from the south of *Theinni* from *Kyañk Koñn* on that river to the east of the town, covering at the same time the *Nán-tú* river, and planting troops at every road or passage leading down to the points at which the Chinese used to come and take water. The Chinese army soon began to experience great distress, no provisions being able to reach them from the rear, as well as being in want of water; and when the Wún-gyih ascertained this fact through some prisoners who had come over to the Burmese in search of water, he attacked the Chinese entrenchments at three points with more than 30 divisions and captured them. The emperor of *China's* brother, TSU'-TÁ'-LÔ-YE', finding the army unmanageable, cut his throat with his own sword and died. The Chinese fled pursued by the Burmese, who took a great many prisoners, together with arms, elephants and horses, and

* *Tein* in the Burmese language means cloud, and *akyá*, or in composition *gyá*, means between. This is SYMES'S *Tengia Boo*.

killed more than they could number. The Chinese generals YAÜ'K-AN, KHE'-WA, PAN-THE, YI'N-TSOUN-YE', YI'N-TÁ-YI', and KUEN-LÔ-YE' were also taken prisoners with their chargers.

The Wún-gyíh MAHÁ THÍ'HA-THU'RA then, leaving a strong garrison in *Theinni*, advanced against the Chinese army under MYENG-KOUN-YE'. The other Wún-gyíh, MAHÁ TSI'-THU', who had posted himself on *Loŋgá-byen-gyíh*, learning by the return of the messenger whom he had sent to *Ava*, that his majesty was highly displeased with him, determined to make another attack on the Chinese, and, marching round the rear of *Thoŋn:zay*, attacked them with three divisions on both flanks and centre, but owing to the great force of the enemy, the Burmese were repulsed, and succeeded only in killing 10 or 20,000 men. The Wún-gyíh rallied his troops, and after recruiting them a little, arranged another attack. He sent 4,000 men secretly at night to the rear of the Chinese army round their right and left flanks, with orders to be concealed during the night, and at day-break to fall upon the right and left wings of the enemy; whilst the Wún-gyíh, on hearing the sound of their attack, would advance with the rest of the army in three divisions, and attack the Chinese in front. This attack succeeded completely; and the weapons of the Burmese were so smeared with the blood of the Chinese, that they could not hold them. The Chinese had before suffered greatly from want of provisions, and their general, now believing that the Burmese from *Theinni* had arrived in his rear, deemed it prudent to fall back with the whole of his 30 divisions of 10,000 men each. The Wún-gyíh continued to attack the retreating enemy, and the whole of the woods and hills were covered with the dead bodies of the Chinese. The Chinese general MYENG-KOUN-YE', collecting as many of his men as he could, retired by *Taung-bain*, avoiding the road to *Theinni*, and on arriving at *Maing:yoŋn* and *Maing:yín*, took post on the top of a hill. The Wún-gyíh MAHÁ TSI'-THU' in the pursuit of the Chinese met the other Wún-gyíh MAHÁ THÍ'HA-THU'RA advancing with his force, at *Naung-bó* to the westward of *Lá-shyó*. The two armies united and marched towards the Chinese general at *Maing:yoŋn* and *Maing:yín*, but as soon as he heard of their approach, he fled into *China*. The two Wún-gyíh's finding the Chinese had retired, and that the king's service was completed, returned with all their prisoners, arms, &c. to *Ava*, where they arrived on the 17th March, 1768.

The Chinese force of upwards of 100,000 men which had marched against *Ba-mó* by the *Thínzá-nuay-lein* road, repeatedly attacked that place, which was so skilfully defended by BULA MEN:DEN, that they

could not carry it, and after losing a great many men, and suffering much from scarcity of provisions, they heard of the flight of the large Chinese army under the king's brother and son-in-law, and immediately raised the siege of *Ba-mó*, and fled to *China*.

For more than twelve months there was a cessation of hostilities between the two countries, owing apparently to a communication sent from *Ava* to *China* by eight Chinese prisoners, who were released for that purpose. But about the end of 1769, intelligence was received from *Ba-mó*, that another Chinese army of 50,000 horse and 500,000 foot was marching against the Burmese dominions under three generals, THU'-KOUN-YE', AKOUN-YE', and YUON-KOUN-YE'. On the 21st October, the king of *Ava* sent a force of 100 war elephants, 1,200 cavalry and 12,000 foot under the Amyauk-wún*, NE MYO':-THI'HA-THU', to *Mó:gaung*, by the route to the westward of the *Eráwadí*. Three days after, another force amounting to 52,000 men under the Wún-gyih MAHÁ THI'HA-THU'RA proceeded by water to *Ba-mó*; and in another three days, two more divisions proceeded with the cavalry and elephants under the Mó:meit Tsó:buáh and Kyôden:yázá, by the road to the eastward of the *Eráwadí*.

The three Chinese generals, on reaching *Yóyí* mountain to the north of the *Lízó*, detached 10,000 horse and 100,000 foot under the Kyen-ngan officer, TSHENG-TÁ'-YI'N, to advance by the *Mó:gaung* road, and cutting timber and planks in the most convenient spots, brought them to the bank of the *Eráwadí*, and left the general LÔ-TÁ'-YE' with 10,000 carpenters and sawyers, to construct large boats†. The main army then marched on towards *Ba-mó*, and after throwing up very extensive stockades at *Shue-nyaung-beng*, twelve miles to the east of *Kaung-toñn*, and leaving 100,000 foot and 10,000 horse to defend them under YUON-KOUN-YE', the rest of the army, amounting to 30,000 horse and 300,000 foot, under the other two principal generals and ten officers of high rank, advanced and invested *Kaung-toñn* towards the land side. 500 boats also, as soon as they were built in the upper part of the *Eráwadí*, were brought down and placed with 50,000 men under YI-TÁ'-YI'N, the governor of *Thú-kyeng*, so as to invest *Kaung-toñn* on the river face. *Kaung-toñn* was repeatedly attacked by the Chinese by land and water, but its governor, BULA MEN:DEN, defended it so bravely and skilfully, that the Chinese were obliged at last to confine their operations to

* Chief of artillery; SYMES'S *Amion-mee*.

† This statement is opposed to Mr. GUTZLAFF'S opinion, derived from the Chinese accounts of this war, that some navigable river from *China* falls into the *Eráwadí*, and that the Chinese army brought boats with them by that means.

keeping up an incessant fire against the place, from the positions occupied by their land and water force.

As soon as the Wún-gyih MAHÁ THÍ'HA-THU'RA, who was advancing with the water force from *Ava*, heard that the Chinese were closely besieging *Kaung-toŭn*, he ordered TSA'N-LHA-GYÍ'H, DHAMMATÁ, BINIÁ UH and SHUE-DAUNG-NGAY with four war-boats and all the boats which had joined him from the different towns on his route from *Ava*, to proceed with expedition before the rest of the army, and endeavour to throw into *Kaung-toŭn* a supply of ammunition and provisions. These four officers attacked the Chinese boats in front of *Kaung-toŭn*, and after defeating and driving them off, and capturing many, succeeded in relieving *Kaung-toŭn*. TSA'N-LHA-GYÍ'H then stockaded himself with 5,000 men in the rear of the Chinese besieging force, on a spot to the south of *Kaung-toŭn*, and north of the mouth of the *Tsín-gan* or *Tsín-khan* river, whilst DHAMMATÁ and BINIÁ UH with their boats, and the Chinese boats which they had captured, took post near the island of *Kyun-dó* on the side of the *Eráwadí*, opposite to that on which *Kaung-toŭn* stands. The Chinese water force returned to its former position in front of *Kaung-toŭn*, and 40 or 50,000 Chinese made an attack on TSA'N-LHA-GYÍ'H's stockade, but being unable to carry it took post round it.

The Wún-gyih being joined at *Tagaung* and *Malí* by the elephants and cavalry which had marched from *Ava* by the eastern route, detached 100 war elephants, 1,000 horse and 10,000 men under the Let-wé-weng-mhú with orders to proceed to *Mó:meit*, and after putting that place in a state of defence, to watch the state of affairs and seize any opportunity which might offer for attacking the Chinese army. The Wún-gyih himself then advanced with his boats, and on arriving near *Kaung-toŭn*, took post near the island opposite that place, towards the western bank of the *Eráwadí*. He then ordered 1,500 horse and 15,000 foot, under the Shye-weng-mhú* and Tein-gyá:men:gaung, to cross over and land on the eastern side of the *Eráwadí*, and, marching round the rear of *Moyú* on the north bank of the *Len-ban-gya*, to attack any convoy of supplies and provisions which might be coming to the enemy from *China*, and afterwards fall on the rear of the Chinese army.

The force which marched from *Ava* to *Mō:gaung* under the Amyaukwún, after placing *Mō:gaung* in a state of defence, advanced to meet the Chinese army coming in that direction. Learning from his scouts

* "Commanding the eastern entrance into the palace," to which honorable post this officer, who had so much distinguished himself in the preceding campaigns, appears to have been elevated.

that the Chinese force of 10,000 horse and 100,000 foot under general TSHENG-TÁ-LÔ-YE', which had been detached towards *Mō:gaung*, had halted on the east bank of the *Eráwadí*, near *Naung-tá-ló* island, above *Kat-kyo-wain-mó*, in order to construct a bridge over the river, which is narrow there, the Amyauk-wún rapidly advanced with his whole force and took post near *Peng-tháh*, an island lying near the west bank, and above and below it along the river, whence he prevented the Chinese from building their bridge or crossing the *Eráwadí*.

The Shye-weng-dô-mhú, having crossed the *Eráwadí* river with his 15,000 men, and landed at the landing-place of the *Ba-mó* mart, marched round the north of the *Len-ban-gyu* stream and cut off the supplies of the Chinese, capturing every convoy of men, horses and mules which was approaching by the *Maing:tcin* road, and then turned round to attack the rear of the Chinese army; whilst the Let-wé-weng-mhú, who had been detached to *Mó:meit*, having put that town in a state of defence and placed in it a strong garrison with its Tṣô:buáh, was advancing towards *Kaung-toñ* with his ten divisions. The Chinese generals, THU'-KOUN-YE' and AKOUN-YE', hearing that the Shye-weng-mhú and Let-wé-weng-mhú were advancing in two directions from the rear to attack them, sent out a force of 5,000 horse and 50,000 foot under YÓ-TÁ-YI'N, the governor of *Lhyín-yín*, to meet the Let-wé-weng-mhú, and another force of the same strength under KÓ-TÁ-YI'N, to meet the Shye-weng-mhú.

As the Let-wé-weng-mhú was advancing from *Mó:meit* and had crossed to the northward of the *Tsín-khan* river, he fell in with 5,000 Chinese horse which were preceding the Chinese general YÓ-TÁ-YI'N, and immediately attacked them with 100 elephants and 2,000 musqueteers and broke them. He then sent against the right and left flanks of the Chinese force 500 Cassay and 500 Burmese horse, whilst he himself penetrated into the very centre of the Chinese force with the rest of his ten divisions. The Chinese were completely defeated and driven back with great loss, and the Let-wé-weng-mhú halted his force, and took post on the north bank of the *Tsín-khan* river.

The Shye-weng-mhú also fell in with the Chinese force sent against him at a spot beyond the *Nán-ma-bué* river, to the eastward of the great Chinese stockade at *Shue-nyaung-beng*, and, dividing his force into three portions of five divisions each, received the Chinese attack. The Chinese horse advanced with great impetuosity, but being received by the fire of 3,000 musqueteers from the Burmese right and left wings, they were driven back with the loss of 5 or

600 men. The whole Burmese force then advanced and attacked the Chinese, and forced them to fall back to their great stockade at *Shue-nyaung-beng* with a heavy loss. This stockade being as large and extensive as a city, the Shye-weng-mhú halted and took post on the east side of the *Nán-ma-bué* river.

On the Let-wé-weng-mhú then sending out a party of 100 horse to open a communication with the Shye-weng-mhú, the latter reported that all the supplies of the enemy had been intercepted, and their communication with the rear cut off, and proposed that the two Burmese forces should make a combined attack on the great Chinese stockades at *Shue-nyaung-beng*, as, after capturing them, the Chinese army before *Kaung-toŭn* would be enclosed like fish in a net. The Let-wé-weng-mhú on receiving this proposition, summoned all his officers, and after praising it to them, advanced with the whole of his ten divisions and joined the Shye-weng-mhú's force before the great Chinese stockades at *Shue-nyaung-beng*. A plan of attack being then arranged, the Chinese stockades were stormed at four points, to the east by six regiments under the Shye-weng-mhú, to the south by six regiments under Men:ngay-bala, to the west by seven regiments under the Let-wé-weng-mhú, and to the north by six regiments under the Láin-bó*. Some of the Burmese entered by ladders, whilst others entered by the openings which were made by elephants employed to butt against and throw down the gates and timbers. Although the Chinese with their general and the whole of their officers received the Burmese on the top of their works, and maintained a heavy fire, the Burmese, urged on by their generals, the Shye-weng-mhú and Let-wé-weng-mhú, succeeded in entering the works, when the whole of the Chinese rushed out of the western face, and joined the army which was before *Kaung-toŭn* under their generals THŪ'-KOUN-YE' and AKOUN-YE'. The Burmese generals having captured the Chinese entrenchments at *Shue-nyaung-beng*, with an immense quantity of guns, jinjals, muskets and ammunition, and horses and mules, placed a garrison of 5,000 men in charge of these stockades. The Let-wé-weng-mhú with ten divisions then proceeded and took post at *Naung-byit* on the north bank of the *Tsín-khan* river, four miles to the south-east of *Kaung-toŭn*; whilst the Shye-weng-mhú with ten regiments took post on the bank of the *Len-ban-gya* river, opposite to *Mó:yú* village, and eight miles distant from *Kaung-toŭn*.

The Wún-gyih then sent eight divisions of his fleet under the MEK-KHA-RA'-BÓ and seven other officers to attack the Chinese boats

* Officer of *Lain*, a town and district near *Rangoon*.

which were blockading *Kaung-toñn*. This attack succeeded; but the Burmese having returned to the *Wún-gyíh* with the boats and guns they had captured, the Chinese fleet rallied and resumed the blockade. The eight divisions of the Burmese fleet, as soon as they had refitted and repaired, again attacked the Chinese fleet, and after a severe engagement, forced the crews to jump on shore, and leave all their boats, guns, &c. of which the Burmese took possession. The *Wún-gyíh's* army then opened a communication with the garrison of *Kaung-toñn*, and the *Wún-gyíh* sent 10 regiments under *MEN:YE'-ZEYA-GYÔ* to cross the *Eráwadí* below *Kaung-toñn* to the eastward, and post themselves along the *Tsín-khan* river to the south-east of that town, so as to communicate with *Naung-byít*, where the *Let-wé-weng-mhú* was stockaded. The *Wún-gyíh* also sent ten regiments under *MEN:YE'-YÁN-NAUNG* to cross the *Eráwadí* above *Kaung-toñn*, and to place themselves along the *Len-ban-gya* river to the north of that town, so as to communicate with *Moyú*, where the *Shye-weng-mhú* was posted. The *Wún-gyíh* also, in order to induce the Chinese to believe that strong reinforcements were daily joining him, made large parties of men, elephants and horses cross over every day from the west to the east bank of the *Eráwadí*, and at night brought them all secretly back again to the west.

The Chinese generals *THU'-KOUN-YE'* and *AKOUN-YE'*, then summoned all their officers, and after describing the defeats which both their land and water forces had so repeatedly sustained, and the severe sufferings which their army was experiencing from the want of every kind of supplies, which the Burmese had intercepted, and observing that even if they succeeded in an attempt to force the Burmese armies around them, the Chinese troops would be unable to go far, owing to the scarcity of provisions, the Chinese generals proposed to depute a mission to the Burmese camp, in order to open a negotiation for peace, and for a passage for their army to *China*. This proposition being unanimously approved of, the Chinese generals addressed the following letter to the Burmese commander-in-chief:—

“The generals *THU'-KOUN-YE'*, *AKOUN-YE'*, and *YUON-KOUN-YE'* to the (Burmese) general. When we three, who were appointed to march to *Ava* by three different routes, were about to commence our march in the year 1129, (1767-8,) the (Burmese) general sent eight Chinese with a letter, stating that all sentient beings desired rest. We therefore delayed our march a year. Even now, we should be happy only to see our dispute settled, which it will not be for years, if we go on fighting. We are not come, because we want the Burmese dominions. If the sun-descended king (of *Ava*)

sends presents, as was the former custom, in the 16th year of the emperor of *China's* reign, we shall send presents in return. Our master the emperor's orders are: 'Fight, if they fight; or make peace, if they make peace.' We three generals, desirous of settling this dispute, have come with a moderate force only. In our Chinese country we are not accustomed to say more than one word, and are used to speak with truth and sincerity only. The present war has arisen from the circumstance of the Tsô:buáhs of *Theinni*, *Bá-mó*, *Mô:gaung*, and *Kyaing:yoŭn* having come and invited us. We will deliver up the Tsô:buáhs, subjects of the sun-descended king, who are now in *China*. Let them be restored to their former towns and situations. And after the (Burmese) general has delivered up to us all the Chinese officers and soldiers who are in his hands, let him submit to the sun-descended king and great lord of righteousness, and we will also submit to our master, the emperor and lord of righteousness, that the two great countries may continue on the same terms as they always were before; that all sentient beings may be at rest; that there may be no war; and that the gold and silver road may be opened."

The Kue-chow-bó* coming to the advance of the Burmese army with the foregoing letter on the 3rd December, 1769, the Wún-gyíh sent out some officers with a Chinese interpreter to meet the bearer of the letter. One of the Burmese officers, hearing that the object of the letter was to open a negotiation for peace, told the Kue-chow-bó, that in order to establish an important precedent, such negotiation ought to take place on the boundary line between *Ava* and *China*. The Kue-chow-bó replied, "Very true, but only say where the boundary is." The Burmese asked, if Buddhist pagodas were not built in the towns of *Hó-thá*, *Lá-thá*, *Móná*, *Tsandá*, *Kaing:máh*, *Khantí*, and *Khan-nyen*? The Kue-chow-bó said that they were built, and that they are still in existence. The Burmese rejoined, the Chinese do not build or worship Buddhist pagodas, but the Burmese do; such buildings are erected throughout the king of *Ava's* dominions, and their existence in *Hó-thá*, *Lá-thá*, and the other towns, is a convincing proof of those places belonging to the king of *Ava*. The Chinese army ought therefore first to retreat beyond those towns, to the boundary of the Chinese empire at *Mó:myín* and *Kyeng-thi*. (*Kyang-si*?) The Kue-chow-bó then asked, if there is not such a place as *Ta-roup-mó* (Chinese point) in the king of *Ava's* dominions; and on being

* That is, "The officer of *Kue-chow* city;" but this name is generally written in Burmese history, *Kue-tsue-bó*.

answered that there is, below the city of *Prome*,—he asked, if the Burmese history and ancient records do not mention, that in a former king of *Pagan's* time, a Chinese army invaded the country and marched along the *Eráwadí* as far as that place, which was thence called *Taroup-mó*;—and on again being answered in the affirmative, he observed, an army under the son, brother, and son-in-law of *TSHEN-BYU'-MYÁ:YEN*, king of *Pegu*, only came as far as those towns of *Hó-thá*, *Lá-thá*, &c. during the reign of that king, and built those pagodas;—but if you refer to the spot only to which an army may have happened to reach, the Burmese army ought, on the same principle, to retreat as far as *Taroup-mó**. The letter from the Chinese generals was then taken in to the *Wún-gyíh*, who, after reading a translation of it which was made, sent word that all his officers had not yet joined him, and that the *Kue-chow-bó* must come again in four or five days.

The *Wún-gyíh* summoned thirty of his principal officers and consulted with them as to the answer which should be made to the letter from the Chinese generals. They all recommended that no terms should be given;—but the *Wún-gyíh* observed, that whenever the Chinese had heretofore erred and attacked *Ava*, the Burmese kings restrained their feelings and granted them peace, recollecting the long friendship which had existed between the two countries;—that even if the Chinese force then before them were entirely destroyed, the empire of *China* would still possess abundance of troops and population;—that if the Burmese refused to grant terms to the Chinese, when asked by them, and cut them to pieces, such a proceeding would be recollected for many successive generations with feelings of animosity and desire of revenge on their part, and the inhabitants of both countries would continue deprived of peace and quiet. For these reasons, the *Wún-gyíh* gave it as his opinion, that terms ought to be granted to the Chinese,—and declared, that if the king of *Ava* disapproved of the measure, he would take the whole responsibility of it upon himself. The other officers acquiesced, and the *Wún-gyíh* then addressed a long reply to the Chinese generals, recapitulating the causes and events of the war, and concluding with an inquiry, whether the Chinese generals desired to settle the dispute by arms or by negotiation. The Chinese generals *THU'-KOUN-YE'* and *AKOUN-YE'*, (the latter here stated to be the emperor of *China's* son,) next sent a long letter addressed to the king of *Ava*, closing

* The ground on which the Burmese claimed *Hó-thá*, *Lá-thá*, &c. is precisely the same as that on which the Burmese of the present day founded their right to *Kubo* valley, *Manipur*, and even to *Chittagong* and *Dacca*.

with a request, that officers of rank and intelligence on each side, should meet and settle all points of difference; and with this condition, that the Chinese army should not retire until after the Burmese army was withdrawn; for, as the Chinese generals said, if we retreat first, we are afraid the Burmese army may follow and attack us, as was done at *Theinni*. This letter was brought to the outposts of the Burmese camp by the Kue-chow-bó and the interpreter NGA-MYAT-THUON-AUNG, on the 10th December, 1769. The Burmese officers who came out and met him, at first refused to take the letter, observing that the business must be discussed with them; that the king of *Ava* ought not to be addressed; and that, in fact, they dare not forward any such letter to him. The Kue-chow-bó assured the Burmese, that the person who had written the letter from the Chinese generals had made a mistake through ignorance, and that the letter was intended for the Burmese generals and officers. The Kue-chow-bó further proposed, that if the Burmese really desired to make peace, they should permit the Chinese army to retire freely to a suitable situation, at which the negotiation might be concluded; and displayed great anxiety for peace as soon as possible. The Burmese officers sent him back with a promise only to report all he had said to their general.

The Kue-chow-bó returned to the Burmese camp on the 12th of December; when the Wún-gyíh delivered to him a letter for the Chinese generals, expressing his willingness to negotiate a peace. The moment the Chinese generals understood the contents, they sent the Kue-chow-bó back to the Wún-gyíh, to beg of him to fix the day on which certain officers of the two armies should meet and discuss the matter. The Wún-gyíh appointed the following day.

On the 13th December, 1769, fourteen Burmese and thirteen Chinese officers of rank met in a large shed, which was erected for the purpose at the south-east angle of the town of *Kaung-toŭn*. On the part of the Chinese the Kue-chow-bó was the principal speaker, and on that of the Burmese, the Wún-dauk NE-MYÓ-MAHÁ-THURA. The Burmese demanded, that the Tsô:buáhs of *Theinni*, *Ba-mó*, and *Mó-gaung* should be immediately made over to them. The Chinese said, that these Tsô:buáhs were not in their camp, and affirmed with an oath, that they should be forwarded to *Theinni* and surrendered to the Burmese there, within six months from that date. The following treaty was then written on white paper with ink, and a copy delivered by the Chinese to the Burmese:—

“ Wednesday, 13th December, 1769, in the temporary building to the south-east of the town of *Kaung-toŭn*. His Excellency the general

of the lord who rules over a multitude of umbrella-wearing chiefs in the great western kingdom, the sun-descended king of *Ava*, and master of the golden palace, having appointed, [here follow the names and titles of the 14 Burmese officers,] and the generals of the master of the golden palace of *China*, who rules over a multitude of umbrella-wearing chiefs in the great eastern kingdom, having appointed, [here follow the names and titles of the 13 Chinese officers,] they assembled in the large building, erected in a proper manner with seven roofs to the south-east of the town of *Kaung-toăn*, on the 13th December, 1769, to negotiate peace and friendship between the two great countries, and that the gold and silver road should be established agreeably to former custom. The troops of the sun-descended king and master of the golden palace of *Ava*, and those of the master of the golden palace of *China*, were drawn up in front of each other when this negotiation took place; and after its conclusion, each party made presents to the other, agreeably to former custom, and retired. All men, the subjects of the sun-descended king and master of the golden palace of *Ava*, who may be in any part of the dominions of the master of the golden palace of *China*, shall be treated according to former custom. Peace and friendship being established between the two great countries, they shall become one, like two pieces of gold united into one; and suitably to the establishment of the gold and silver road, as well as agreeably to former custom, the princes and officers of each country shall move their respective sovereigns to transmit and exchange affectionate letters on gold, once every ten years."

The Burmese negotiators, after receiving the above treaty, applied to the Chinese to make over to them such boats as the Chinese still appear to have had near *Kaung-toăn*. The Chinese promised to deliver the same after they had been employed in bringing up their stores to *Ba-mó*; but the boats were burnt on the same day by the Chinese generals, and some difference of opinion afterwards took place about them. Presents being exchanged between the Chinese and Burmese generals, and some sent by the Chinese to the king of *Ava*, the Chinese army began their march towards *China* on Monday, the 18th December, followed at a distance of a jinjal shot by the Burmese divisions under the *Let-wé-weng-mhú* and *Shye-weng-mhú*, until the Chinese reached the boundary of their country, when the Burmese returned to *Ba-mó* and *Kaung-toăn*. At the same time, the Chinese commanders-in-chief having sent the necessary orders to that portion of their army which had marched towards *Mo-gaung*, that force also retired into *China*.

The Chinese armies having suffered long from want of provisions, those men only who were able-bodied succeeded in reaching *China*, and the forests and mountains were filled with countless numbers who died on the route from starvation.

When the officer, whom the Wún-gyíh sent with a report of the peace which had been concluded with the Chinese, and with a large quantity of silks and satins that had been received from the Chinese generals as presents for his majesty, arrived at *Ava*, the king disapproved of the conduct of the general and officers, for allowing the Chinese army to escape; refused to accept the presents, and ordered that the wives of the general and other chief officers should be placed with the Chinese presents on their heads, in front of the western gateway of the palace; and notwithstanding that the wife of the general-in-chief was a sister of the principal queen, she and the wives of the other officers were exhibited for three days at the appointed place, with the bundles of Chinese silks and satins on their heads.

The Wún-gyíh and other officers hearing how highly the king was displeased, were afraid to return to *Ava* immediately, and determined to go first and attack *Manipur*, the Tsô:buáh of which, they heard, had been fortifying himself again. In January, 1770, therefore, the Burmese army crossed to the westward of the *Erúwadi* at *Kaung-tozhn*, and marched to *Manipur*, and although the Tsô:buáh of that place made arrangements for checking the progress of the invaders at every defile and narrow pass, the Burmese army succeeded in penetrating to the capital, when the Tsô:buáh fled with his family and as many of his adherents as he could, and concealed themselves in jungles and high hills. The Burmese army seized the whole of the population and property they found in the country, with the princess of *Mueyen*, *Tuonkó*, and princes HE'MÔ and TSANDA-YO'-KAY, and brought them to *Ava*, where they arrived on the 23rd of March, 1770.

The king, still displeased at the Chinese army having been allowed to escape into *China*, refused to see the Wún-gyíh and other officers of the Burmese army, and ordered them to be removed out of his kingdom into some other territory. They were conveyed to the eastern side of the *Myít-ngay*, which joins the *Erúwadi* near the north-east angle of the city of *Ava*; and two other Wún-gyíhs were also ordered by the king to be taken to the same place, for having presumed to speak to his majesty in favor of the general and other officers. About a month after, the king forgave the whole of them, and allowed them to return to *Ava*.

The Chinese generals, THU'-KOU'N-YE' and AKOUN-YE', returned and reported to the emperor of *China*, that having made peace with

the Burmese at *Kaung-toŭn* upon these conditions ; namely, that the Tsô:buáhs of *Theinni*, *Ba-mó* and *Mó:gaung*, subjects of the king of *Ava*, should be surrendered at *Theinni* ; that all the Chinese officers and soldiers taken prisoners by the Burmese in the years 1765, 1766, 1767, and 1769, should be given up ; and that ambassadors should be sent by both sovereigns once in ten years, the armies of both nations had retired ; and that two officers, the Kue-chow-bó and KYI'N: MEN: TI' TU' HA, had much distinguished themselves. The emperor of *China* was greatly pleased and desired to promote those officers ; but two of the imperial kinsmen, HÁ-TÁ-YI'N and TSHI'N-TÁ-YI'N, with two Tartar nobles, the governors of *Atsì-kyain* and *Maing:thín*, submitted that they should first be allowed to go down to *Mó:myín* and see how far the statements of the Kue-chow-bó were founded in truth. These four individuals accordingly came down to *Mó:myín* and sent a letter to the Burmese governor of *Kaung-toŭn*, in charge of a subordinate officer and upwards of fifty men ; but the governor finding from a translation of the letter, that its contents were very unfriendly, seized and confined the whole of the Chinese mission. A report of the Burmese governor's proceeding was immediately forwarded to the emperor of *China* at *Pekin*, who ordered the Kue-chow-bó to go down himself and see how the matter could be settled.

The Kue-chow-bó came down to *Mó:wún* with upwards of 1,000 soldiers, and sent a very civil letter to the governor of *Kaung-toŭn*, requesting him to release the Chinese party he had confined, and to send back with them the letter which had been addressed to him by the governors of *Atsì-kyain* and *Maing:thín*, by order of HÁ-TÁ-YI'N and TSHI'N-TÁ-YI'N. The governor of *Kaung-toŭn* immediately complied with this request ; and on the Kue-chow-bó perusing the letter, which had been sent to *Kaung-toŭn*, and finding its contents to be not only uncivil, but warlike and threatening, he forwarded it to *Pekin*. The emperor was exceedingly angry, and ordered HÁ-TÁ-YI'N and TSHI'N-TÁ-YI'N, with the two Tartar nobles who had written the letter, to be sent up to *Pekin* in irons. HÁ-TÁ-YI'N died on the road, but on the arrival of the other three individuals at *Pekin*, the emperor ordered them to be executed. In the same year, in October, 1770, the caravans of Chinese merchants came down as before to *Ba-mó*, *Kaung-toŭn*, and other places in the Burmese dominions.

[To be continued.]

X.—Notice on *Balantium*, a genus of the Pteropodous Mollusca; with the characters of a new species inhabiting the Southern Indian Ocean.
By W. H. BENSON, Esq. B. C. S.

In Vol. iv. J. A. S., page 176, I enumerated the genera of *Pteropoda* met with in my voyage from England, and noticed, under No. 11, a new perforate genus allied to *Cleodora*, which I marked as very rare, in consequence of the specimen which fell to my net having been the only one seen during the passage.

On looking over the plates of *Lamarckian* genera of *Testacea* given in the old series of the *London Quarterly Journal of Science*, Vol. XV. I met with a figure, No. 107, Plate VII., which bore a very near resemblance to the shell from which I intended to draw the characters of a new genus; and on reference to the letter-press, page 220, I found a note which had theretofore escaped my notice, containing the characters of the genus *Balantium*, which the anonymous translator proposed to establish in order to receive a shell taken by Mr. CRANCH, in Captain TUCKER'S expedition to the *Congo*, and preserved with another shell, apparently of the same genus, in the British Museum. The writer assigned the shell provisionally to the family of *Hyalæana*, merely from the strong analogy which the substance of the shell bore to that of *Hyalæa*, until an opportunity should occur of obtaining more accurate information regarding a species so interesting. That opportunity has partly occurred to me, and I am enabled, by the discovery of a second allied species, to confirm, from an inspection of the animal, the correctness of the writer's conjecture regarding the location of the genus in the order *Pteropoda*. The following is the description of *Balantium recurvum*, as given in *Brande's Journal*.

“Shell transparent, very thin and fragile, hyaline, corneous, hastiform: apex recurved; open at both ends; superior aperture dilated, sharp-edged; inferior round, very minute; *sides acute*; superior disk undulated; inferior rounded; numerous transverse grooves on both sides.”

The new species differs from the description in having no recurved termination to the shell, or at least the bend is so inconspicuous, as to be of no value as a character; the terminal aperture is also larger in proportion, being, in my specimen, nearly 0.05 of an inch in diameter. It has on one face three radiating longitudinal ribs, (one central and broadest, and two lateral.) The lateral margins are more regular than in *B. recurvum*, are destitute of the grooves which cross the shell transversely, and are provided with a groove running the whole length of their truncated edge, whence it happens

that they are bicarinate, instead of presenting a single edge or keel. The other face has only one broad central elevation, which expands gradually, and in proportion to the increase in width of the shell, towards the superior aperture. My shell is shorter in proportion than *B. recurvum*. I propose to describe it as

BALANTIUM BICARINATUM.

Testa compressâ sub-triangulari hastiformi, faciebus utrisque transverse sulcatis, superiori triradiatâ, radiis convexis, approximatis ad marginem superiorem provectum undulas tres formantibus; facie inferiore medio convexâ, abbreviatâ; marginibus lateralibus lævibus unisulcatis, sub-bicarinatis.

Long. 0.65, Lat. 0.5 poll.

Habitat in Oceano Indico Australi, non procul ab insulis Amsterdam et Sancti Pauli dictis.

I took the shell on the night of the 28th November, 1834, in S. lat. 36° 30', and E. long. 75° 30', in company with *Janthina exigua* and another small flat spired species, *Cleodora*, *Hyalæu*, a small *Cephalopode* of the genus *Cranchia*, an independent floating *Anatifera*, and a crustaceous marine *Centipede*. With the exception of a protrusion of a small portion of the *Molluscum* at the apex, the animal was very similar to that of *Cleodora*, but having been crowded with too many specimens in spirits of insufficient strength, it decayed, and was no longer recognizable, when I had an opportunity of substituting a stronger preservative liquor.

I observe that DE FERUSSAC, in his enumeration of the species of *Pteropoda*, contained in No. 262 of the *Bulletin des Sciences*, has referred *B. recurvum* to the genus *Cleodora*, as *C. Balantium*. As the only habitat given by him is *Congo*, it is evident that he was possessed of no information in addition to that contained in the *Journal of Science*, and that he had arbitrarily assumed the specimen to be defective in the apex. The discovery of another species with a similarly perforated extremity, and a like flattened form, should cause us to hesitate before blotting out the genus indicated by the writer in the *Journal of the Royal Institution*. Nothing but the discovery of an imperforate specimen should now permit its annexation to *Cleodora*, between which and *Hyalæa* it appears to supply a void. The parts of Pelagian shells which are most subject to injury are the delicate edges of the apertures, not the imperforate apices, which even in the tender spinous terminations of the *Cresides* and *Cleodora*, are always met with in a perfect state. *Cuvieria* forms no exception to the rule, as, in that genus, the spinous termination is cut off by a diaphragm, and the derelict portion, therefore, follows the ordinary rule observable in

truncated shells. The terminal volute of *Carinuria* is also liable to decadence, but no perforation is visible in the injured part.

I think that the preceding observations will tend to uphold the claim of *Balantium* to rank as one of the prominent types of form, which, for convenience' sake, are termed genera, and that it is desirable that the anonymous institutor of it should claim his property, in order that we may know to whom we should rightly attribute its first indication.

The other species noticed in the *Journal of Science*, as preserved in the British Museum, would appear, from the figure referred to in PARKINSON'S Introduction, to be a *Cleodora* which we met in a tract of the Indian Ocean contained between the parallels of 30° south and 3° north, and the meridians 86° and 92° east; but PARKINSON'S figure does no justice to the form of that truly elegant and delicate shell.

XI.—*Additional fragments of the Sivatherium.*

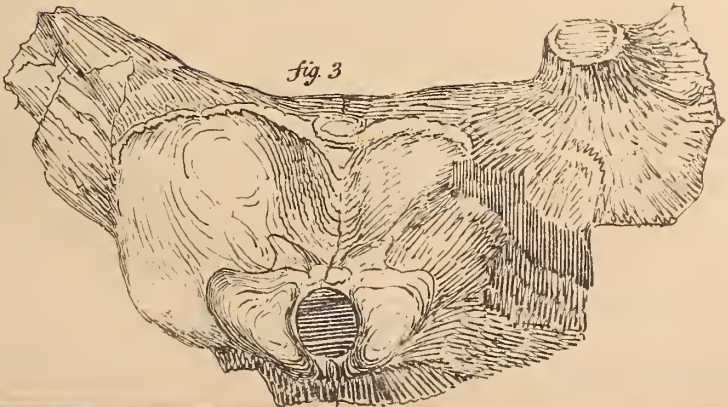
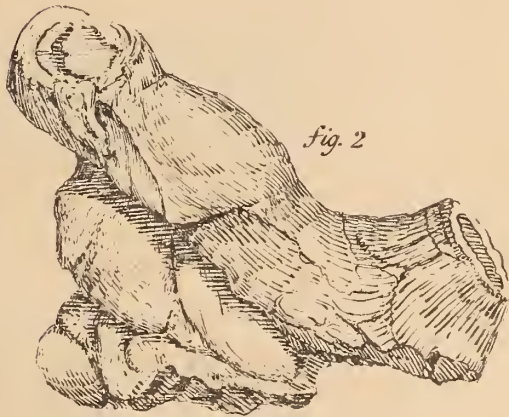
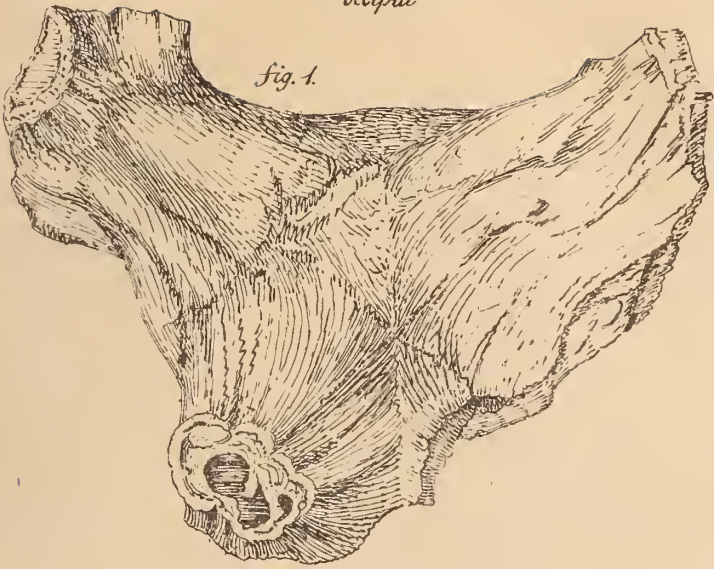
Before Colonel COLVIN'S departure for Europe, we requested permission to take a cast of the beautifully preserved lower jaw of the *Sivatherium* which he exhibited at the Government House scientific party in January last. In further token of his zeal for science, and of his ever-readiness to oblige, he has, even in the hurry of embarkation, favored us with the accompanying lithographic drawings of the same jaw, and of the larger fragment of the occiput also on its way to adorn some cabinet of fossil osteology in his native land. This fragment is the more valuable on account of its being perfect in the parts deficient in Dr. FALCONER'S specimen published in the *Asiatic Researches*, vol. xix.* We subjoin the Colonel's note explanatory of the drawings, (Plates VIII. IX.)

" I herewith send you two plates of the *Sivatherium*, one of the portion of the head I was fortunate in having brought in from the lower hills below and west of *Náhan* just before I left *Dádúpur*. It arrived encumbered with a good deal of hard sandstone matrix, most of which I had cleared away. This specimen is valuable, though it has no teeth, from having the occiput very entire, and from its proving the accuracy of Dr. FALCONER'S assumption, founded on examination of the original head, that the animal had four horns with bony cores, as this has the offset of one of the back branched horns very clearly marked; suitable to which I may mention that Captain CAUTLEY has found in his collection a large flat horn. In this Plate, *fig. 1*

* See *Journal Asiatic Society*, vol. v. January.

SIVATHERIUM

occiput



SIVATHERIUM

Lower jaw

fig. 1.

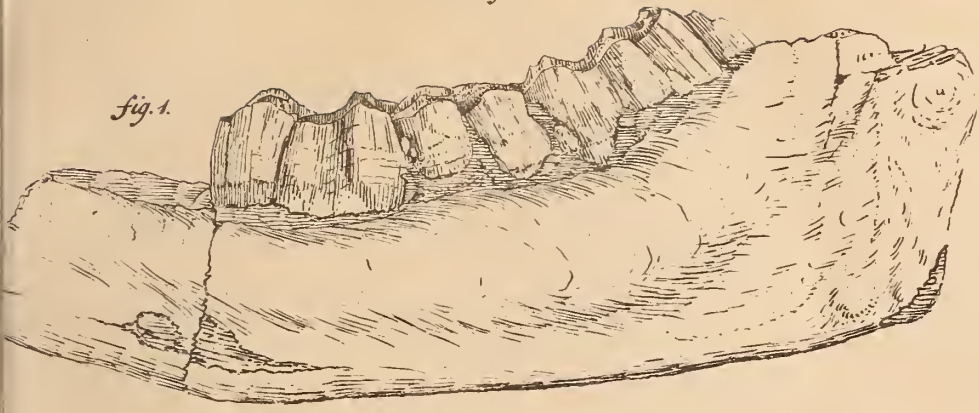
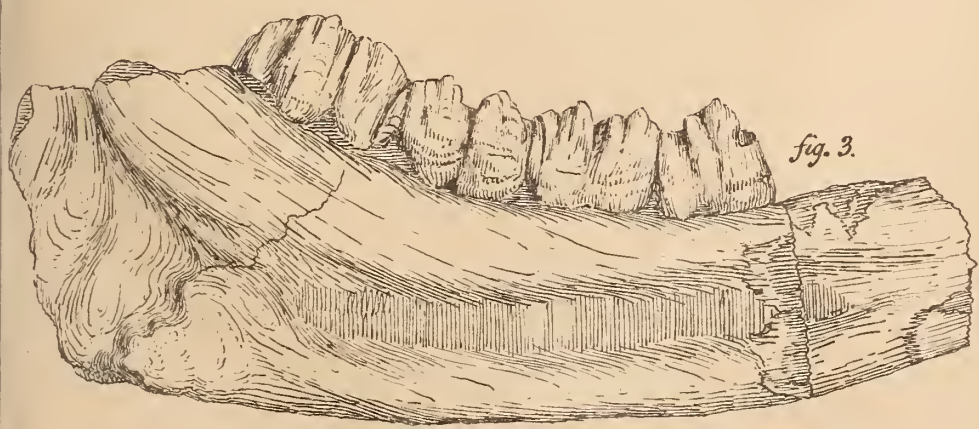


fig. 2.



fig. 3.



Scale $\frac{5}{16}$ th of natural size

represents a front view of my fragment; *fig. 2*, a side view of the same, showing the setting on of the new horn, and the rise of the front one over the eye; *fig. 3* is a view of the occiput:—the whole appear partly distorted from occurrence of a shift. For the left lower jaw of the *Sivatherium*, delineated in the 2nd Plate, I am indebted to Conductor W. DAWK, of the Canal Department, for whom it was brought in, inclosed in a mass of similar sandstone, from near the sources of the *Sombe* river, north of *Dádúpur* and east of *Náhan*, shortly before I came away. It is a very perfect and beautiful specimen, with its molars, four in number, almost quite entire, and is the specimen which you have moulded.

Fig. 1 is of the outside of the left lower jaw.

Fig. 2, ditto crown of the teeth, in which I have endeavoured to be accurate in drawing the flexures of the enamel.

Fig. 3 is of the inside of the same jaw.

In *fig. 1* I have hardly had the jaw perpendicular when drawing it, as it does not sufficiently express the great height of the inner range of the molars over their outer edge, which a cross section would have better shown; but as the specimen is gone on board, I cannot now make it."

XII.—Note on the Hotspring of Lohand Khad. By Capt. C. M. WADE.

Near the village of *Bhasra* and the source of the *Lohand Khad*, (a rivulet, which flows into the *Satlaj* from below the ridge on which the fort of *Chambá* is situated,) there is a mineral spring, the water of which has a strong saline taste, and is said to be very efficacious in cases of goitre, dropsy, and rheumatism. Many people are in the habit of resorting to it from the neighbouring country annually in the months of May and June, December and January, to drink its water, both for the cure of these complaints, and to benefit by the salutary effect it is supposed generally to have on the constitution. A course of seven days is considered sufficient to affect the patient with its peculiar qualities. It is drank early in the morning and at meals, and has a slightly aperient quality. While drinking the water it is necessary, in the opinion of the natives, to observe a strict regimen, eating nothing but dry wheaten cakes kneaded with the water of the spring, and occasionally a few grains of black pepper. When the actual course of drinking is over, abstinence from salt in any form is enjoined for the seven following days. During the hot months it is visited chiefly by those who are affected by goitres. In the cold months it is found to be beneficial in scrofulous complaints, as well

as dropsy and rheumatism. When taken for rheumatic affections the body is said at first to swell and to subside after the water has been drunk the regulated time. Persons of wealth, and those who are not able to proceed to the spring, send for the water from a distance at the proper season, in order to go through a course of it. There are no habitations near the spring of a permanent description. Those who resort to it, generally amounting to two or three hundred at a time, erect temporary sheds for themselves while they remain. The soil is argillaceous, of a reddish blue tint. Though situated near the source of the *Lohand Khad*, there appears to be no connection between the spring and that rivulet, excepting in the rainy season, when the inundation is stated to impair the efficacy of the water, and neutralise its saline taste. The dimensions of the spring are about three feet broad and five deep. It is immediately on the frontier of the *Khalúr* and *Hándúr* territories. *Lohand Khad* forms the boundary between these two States, and flows into the *Satlaj* near *Kiralpúr* in the valley of *Makhawal* above the town of *Ropur*. No sacred character seems to be attached to the spring any more than the reverence with which the Hindus are accustomed to regard these phenomena of nature in all situations. It does not appear to be frequented by any pilgrims, who are led to it from religious motives alone. The *Khalúr* rája attempted some years ago to levy a tax on those who come to drink the water, but was diverted from his purpose by the advice of Captain MURRAY, to whose authority he was subject, for his possessions on the left bank of the *Satlaj*.

[The analysis of this and numerous other specimens of water will be given hereafter.—J. P.]

XIII.—*Proceedings of the Asiatic Society.*

Wednesday Evening, the 1st March, 1837.

W. H. MACNAGHTEN, Esq., Vice-President, in the chair.

Messrs. J. M. MILL and W. CRACROFT, proposed at the last meeting, were balloted for, and duly elected Members of the Society.

H. TORRENS, Esq. was proposed by Mr. H. T. PRINSEP, seconded by Mr. MACNAGHTEN.

Col. HEZETA, proposed by Major TAYLOR, second by the Secretary.

Mr. W. STORM, proposed by Mr. BELL, seconded by Dr. WALLICH.

The Secretary proposed the Bishop of Cochin-China as an Honorary Member, seconded by Mr. W. H. MACNAGHTEN ;—referred to the Committee of Papers.

Read a letter from Captain H. HARKNESS, Secretary to the Royal Asiatic Society, acknowledging the receipt of oriental works published by the Society.

Read a letter from H. T. PRINSEP, Esq. Secretary to the Government of India, General Department, communicating the following extract from a Letter, No. 15, of 1836, from the Honorable the Court of Directors, dated the 14th September, 1836.

Para. 4. We learn from the *Journal of the Asiatic Society* that you have recently transferred the European portion of the Books of the Library of the College of Fort William to a Public Library in Calcutta, and the Oriental Works to the Asiatic Society of Bengal. We observe that this measure is made dependent upon our sanction, but as we are not aware of the reasons which recommended such a distribution, we refrain at present from issuing any directions upon the subject. With regard to the manuscripts, however, it is probable that the collection comprizes many copies of several of the works or duplicates of those previously in the possession of the Asiatic Society; and we direct that in all such cases two copies be forwarded to us without awaiting the receipt of our decision upon the arrangement which you have made for the distribution of the contents of the College Library. We, at the same time, desire that you cause to be prepared and forwarded to us by the first opportunity, a list of the several works, both European and Oriental, which are included in the arrangement now referred to.

Ordered,—that a list be prepared of the works included in the Court's requisition, and that the manuscripts in question be separated for transmission home through the Government.

The Secretary noted the sale of 2,000 Rupees Company's Paper with which the Printer's bill had been discharged.

Read a letter from Monsieur S. L. LAPORTE, Secretary to the Linnæan Society at *Bordeaux*, proposing a mutual correspondence and interchange of objects of natural history, which M. LAPORTE also offers to individual members from his own rich collection of Zoology.

Read a letter from Professor OTHM. FRANK of *Munich*, acknowledging the receipt of Oriental works published by the Society, and suggesting a list of some of the principal Sanscrit works which it would be desirable to undertake, on the completion of those now in hand.

Mr. E. V. IRWIN presented on the part of the author, a duplicate of the Chronological hypothesis signed VERITAS, which was received from *Van Dieman's Land* some months ago.

Library.

Dr. WALLICH presented a continuation of the Meteorological Register kept at the *Mauritius*, by M. JULES DESJARDINS.

Mr. D. O. DYAS SOMBRE presented a finely illuminated copy of the *Gulistán*, supposed to have been copied for the emperor AURANGZEB at *Bijápúr*, and lately belonging to the Begum SOMBRE's library.

Read a letter from J. BELL, Esq., Secretary to the Agricultural and Horticultural Society of Calcutta, forwarding for presentation a copy of the 3rd vol. of its Transactions.

Mr. JOHANNES AVDALL presented a map of *Armenia*, published at *Venice*, in 1778.

Notice Historique sur CHARLES TELFAIR, Esq. late President of the Société of Natural Histoire of Mauritius, by M. JULIEN DESJARDINS, Secretary to the Society—presented by the author.

Narrative of the wreck of the *Lady Munro* on the isle of *Amsterdam* in 1835, —by Dr. M^cCosh.

The following books were received from the booksellers:

Buckland's *Bridgwater Treatise, Geology and Mineralogy*, Vols. I. and II.

Lardner's *Cabinet Cyclopaedia: Foreign Statesman*, Vol. 3rd.

The following works translated and published by Mr. LEWIS DA COSTA, were presented on his part by Mr. GEORGE HILL.

4 vols. 4to. *Elements of General History*, in Hindústání.

1 vol. ditto, *The Book of Common Prayer*, in Persian.

1 ditto, ditto, ditto, ditto, ditto, in Hindústání.

1 ditto, 8vo. ditto, ditto, ditto, ditto.

1 ditto, ditto, ditto, Abstract, ditto, ditto.

1 ditto, 4to. *The Penal Code*, in Persian.

1 ditto, ditto, *Regulations of Distress, Replevin and Sale, &c. of Lands*, do.

Museum.

Mr. DYAS SOMBRE presented to the Society, through Dr. BURLINI, the sword of her late Highness Begum SOMBRE, which she had worn from the year 1778 to the day of her death, and which was always kept by her bedside.

A collection of models of the human hand and foot in plaister of Paris, was presented on the part of Mr. C. W. SMITH.

Dr. WISE, Principal of Húghlí College, intimated that he was desirous of forming a museum in connection with the Húghlí College, and would be happy to receive any duplicates which the Society might be able to spare.

The following memorandum and proposition were submitted by Captain CUNNINGHAM:—

“ Having been engaged during the past month in arranging the coins in the Cabinet of the Asiatic Society, I beg to submit to the Members of the Society the following observations upon their collection.

1. The collection of coins belonging to the Asiatic Society is so exceedingly meagre in every series of coins that would be of use to the historian and to the antiquary, and, at the same time, the individual specimens are so very poor in point of preservation, that the whole number of coins, which have been many years in collection, is scarcely deserving of the name of a Cabinet. To prove the meagreness of the collection, I need but to subjoin a list of the coins now in the Cabinet of the Society, in which the only really valuable specimen is a gold coin of MAHENDRA GUPTA.

List of the Coins in the Society's Cabinet, with their value.

| | <i>Co.'s Rs.</i> |
|---|------------------|
| 1 Gold coin of MAHENDRA GUPTA, | 30 |
| 52 Dekkany gold hoons; some small, others minutely small, | 60 |
| 7 Modern gold coins, chiefly Nipálese, | 25 |
| 42 Indo-Scythic coins, including some rudely executed base gold coins, | 50 |
| 26 Grecian, Arsakian and Sassanidan, | 50 |
| 30 Músalmán and Nipálese silver coins, | 30 |
| 227 Músalmán pice, all exceedingly common, except a Mahmud, .. | 11 |
| 281 Dekkany pice—mostly modern and wanting inscriptions—nearly worthless, | 5 |
| 115 small silver coins—punch marks and Varáha series, <i>all bad</i> , ... | 25 |
| 156 Chinese and Japanese, | 5 |
| 25 Continental silver coins, | 35 |
| 221 Roman coins, | 120 |
| | 446 |

2. It is a fact, which must be known to most of the Members, that the Society's collection has not been increased during the last two or even three years by the addition of a single coin; or, in other words, that since private individuals have commenced the collection of coins, there have been few, if any, presented to the Society's Museum: most persons finding more pleasure in obliging a friend, by presenting to him any coins that they may pick up, than in displaying their public zeal by making a donation of them to the Society. I therefore beg to propose,—

As the Society's Cabinet has not been increased during the last three years by the donation of a single coin, and, as from the number of private individuals now collecting coins, there is but little likelihood of any donations being made for the future,—

That the Society do either increase their collection of coins by purchasing such as may offer from time to time, in order that their Cabinet, at present nearly valueless, may be useful to the Antiquary in the elucidation of doubtful points in history,—

Or, that the Society do sell their present incomplete collection to the highest bidder, and apply the proceeds either to furnishing the Museum with subjects more generally interesting or with furniture indispensably necessary."

The general opinion of the Meeting was adverse to the sale of the Society's Cabinet, its preservation being no source of expense; and it was to be hoped opportunities might occur of rendering it more important and rich.

Mr. BELL submitted the following communication on the subject of the statistical inquiries suggested by the Royal Asiatic Society. The author was thanked by the Chairman for his offer to draw up a series of papers on staple products of India, and his note was ordered to be made over to the Statistical Committee.

TO JAMES PRINSEP, Esq.

Secretary, Asiatic Society.

SIR,

I have read with much satisfaction a pamphlet presented at the last Meeting of this Society, containing a highly interesting paper drawn up by the Right Honorable HOLT MACKENZIE, and JOHN FORBES ROYLE, Esq., "having for its object the formation of a Committee of Agriculture and Trade in relation to the East."

Conceiving, with advertence to the circular, which accompanied this pamphlet, from the Right Honorable Sir ALEXANDER JOHNSTON, Chairman of the Committee of Correspondence of the Royal Asiatic Society, that any information derived from authentic sources, however incomplete, will be acceptable, I feel desirous to become a humble laborer in a field in which I have, from my arrival in India (16 years) felt peculiar interest; by submitting to the Society, for transmission to the Committee of Correspondence in England, if approved and deemed worthy, the results of information I have endeavoured faithfully to collect on the various productions of India.

It may be deemed presumption in me to propose to myself this task, in the face of so serious an imputation as is borne on the circular in question; viz. "Few in India know what England requires; and none of the lights of modern science having been applied to the agriculture of the former country (India), its productive powers have, as yet, been very imperfectly developed."

However undeniable this position is, I hope it may be conceded that there are those in India who are equally ready to impart the little information they do possess on the subject which is to engage the attention of the Committee of Correspondence, as the members of that Committee can possibly be to collect and arrange it.

Impressed with the importance of, and great advantage likely to be derived from, a share of public attention being paid to Statistics in this country, I endeavoured to draw notice to the project of forming a Society, by a communication which appeared in the *India Gazette* of the 15th or 16th of August, 1834, under the signature of "*A Friend to Improvement*;" and I now rejoice that, although I failed in attracting attention to the scheme, the matter has been recently taken up by an able Committee of this Society, for the purpose of collecting and condensing statistical information generally.

I mention this circumstance only that I may not be thought to write for writing's sake, or to offer suggestions and make promises that are frequently made on the impulse of the moment when any new scheme is adopted, without due deliberation, or without thoroughly understanding the nature of the obligation. I have studied the subject long, and the longer my reflections are brought to bear on Indian Statistics, so much the greater is my desire to be of the least service in endeavoring to develop the resources of this country. And the only excuse I can venture to offer for having been so long a silent and useless observer, is the fact experience has taught me, that to *publish* information of utility at one's own expense in India, is a serious and losing affair; while, to throw away information, or give it to those who do not appreciate it, is an equally unprofitable task.

A depository has now been opened for the reception of all useful communications by the formation of two Committees almost simultaneously, for the same purpose, and these at a distance of some 13,000 miles from each other,—a coin-

vidence which ought to convince the most sceptical of the demand for information, by no means scarce, but which, for the reasons I have stated, has been kept back by some, scattered to the winds by others, or carefully locked up in Government offices; and now in the year 1837, when any question in political economy is agitated, there is not in all India a book of general reference. What is the consequence? A question that in England would be settled in a month, requires in India at least a year to collect data on which to frame a report.

Now, the least advantage that may be expected from the labors of these Committees, will be a ready reference to all matters relating to political economy, and a sure guide to future legislation. Instead of groping in the dark, and seeking information from numerous and doubtful sources, it would be found carefully collected and condensed from the best authorities at one and the same point.

So grand a design could not be compassed by any one individual, even were his whole time and attention devoted to its accomplishment, and life ten times its present span. But in the hands of a Committee there is no reason to apprehend failure, and I think, that as soon as the objects of the Committee are sufficiently explained and made known, there are many who will willingly and zealously contribute all they can to the general fund.

Without taking up more of the Society's time, (and I beg pardon for this intrusion,) I may merely add that I shall be glad to undertake a series of essays on the principal productions of India. For example, I would begin with "*Cotton*," which, as Mr. HOLT MACKENZIE justly observes, "had become almost a necessary of life to a large proportion of our manufacturers; and it was fearful to think how much we depended for it on a single source of supply."

Without meaning to question the accuracy of this argument, I think I could, without much difficulty, shew, that the English manufacturer is not so entirely dependent on a single source, as it is generally supposed; for these deductions were drawn from what India *has* produced—not from what India *can* and *may* produce.

2. I would endeavour to point out the obstacles that have existed to improving an article now of such vast commercial importance; and how these obstacles can be best removed.

3. What the capabilities of this country are, supposing political events compelled the British manufacturer to depend for supplies of cotton on India alone.

4. The average prices of Indian cotton in the English market for the last twenty years, contrasted with those of American and other foreign grown cotton.

5. That India is capable, under ordinary care and encouragement, of maintaining a successful competition in the British market with any foreign country.

6. The probable quantity of land in India formerly occupied by cotton, which has been thrown out of cultivation, by the great influx of British Twist, and the extent to which this cultivation may be brought back by introducing a superior staple and improved mode of culture.

These remarks would be founded on sound calculations deduced from tabular statements, as well as actual experiment, and not on theoretical argumentation.

Cotton, as I have said, would be the subject of my first essay—which would be followed by a similar statistical view of our Indian *Silk* trade. *Sugar* would thirdly engage my attention, and so on until the list of staples had been completed.

From these I should descend into the hitherto less explored, though not less interesting regions of agriculture, and try to discover whether there are not many productions now left entirely to nature, that could not, with a little attention, be rescued from unmerited oblivion, and brought to form a valuable addition to the *Materia Medica*, and to the present list of exportable products.

I have the honor to be, &c.,

Calcutta, 23rd February, 1837.

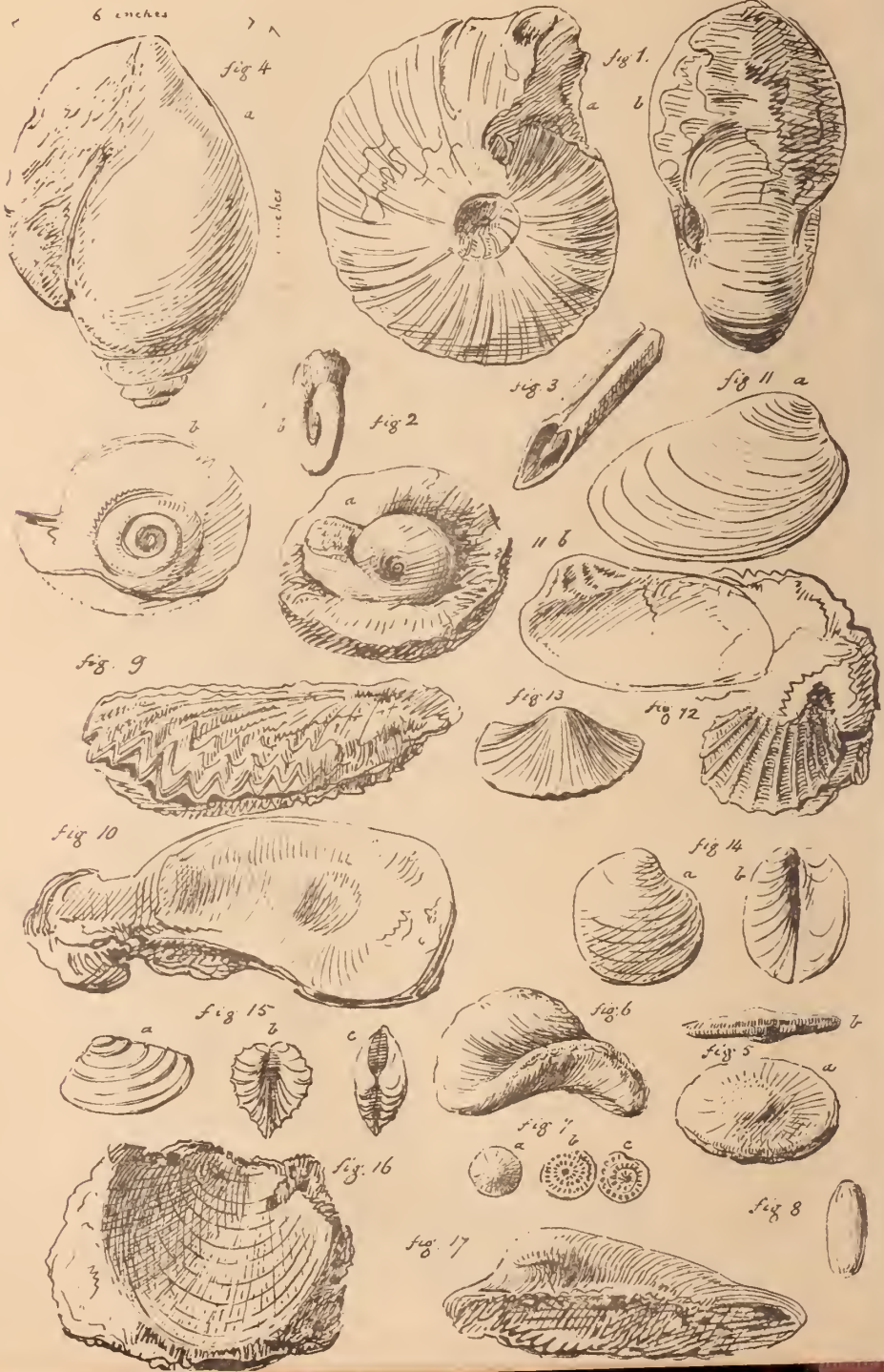
JOHN BELL.

Physical.

A very large stuffed specimen of the *Ornithorhynchus paradoxus* was presented by Mr. E. V. IRWIN.

A letter from Lieutenant N. VICARY, dated *Sydney*, 28th October, 1836, announced his having dispatched, under care of Captain DAVIDSON, of the *Lady Kennaway*, a box containing a series of the fossil shells of *New South Wales*.

Fossil Shells of the Chari hills in Cutch.



Captain EDWARD H. HARRIS, Commodore on the *Surat* station, presented a box of fossil bones from the *Perim* island in the Gulf of *Cambay*, which he had procured after much difficulty expressly for the Society.

Among these are several very perfect bones—an alligator's head differing from that sent by Lieutenant FULLJAMES—a buffalo's horn—a very large vertebra—a well preserved mastodon's tooth in iron-sand conglomerate—and numerous other fragments.

Captain A. BURNES' series of the geology and fossil conchology of the *Chari* range in *Cutch*, arrived since last meeting, was laid on the table.

"These specimens" (Captain BURNES writes) "are duplicates of what I forwarded to the Geological Society of London about six months ago. Professor LYELL had cursorily looked over them, and a friend writes of some others which had been sent from the same spot: 'Mr. LONSDALE is decidedly of opinion that the fossils are much more different specifically from European secondary fossils, than those received from *Cutch* a few years ago.'"

The principal varieties of these shells, are sketched in the accompanying plate, (ix.) but it is impossible, from the imperfection of most of them in essential parts, to name them with accuracy.

From the *Chari* hills, fig. 4, a large buccinum (?) 8 inches long;—ammonites of several species (1, 2,) enclosed in wacken balls,—sometimes mineralized with a fine red ochre; belemnites, 3, occurring with and enclosed in bivalves 11, 12, 14;—ostrea, two varieties, 9 and 10. From *Wagne*, east of *Bhooj*, the same shelly conglomerate, containing a variety of bivalves, 11, 15 and 16; pecteu 16 and 17 (arca?) with large ammonites, &c. From *Liseput*, the principal shells are nummulites 5, 6, 7,—some curiously curved in a saddle form;—and small egg-shaped radiata, 9, pentacrinites?

The geological matrix of the *Chari* and *Wagne* specimens is a yellow ochreous limestone similar to the lithographic stone from *Jesulmtr*: one specimen has much the appearance of polite. Also crystallized sulphate of lime, vesicular basalt with zeolites and green earth, septarium iron clay, iron sand, and fossil wood.

From *Hyderabad*; gypsum cryst. compact sandstone and lias (?).

Wara Vechia; granular granite, passing into sandstone basalt—decomposed felspar.

Balmer, south of *Jesulmtr*; sienite lithomargic conglomerate, white porcelain clay, red ochre balls.

Liseput; light clayey limestone—and porous basalt.

Paccham island; sandstone and coarse pebbly conglomerate, yellow limestone and gypsum, as before.

Naitra; a basaltic grit.

Tramlow, six miles N. W. of *Bhooj*; iron pyrites.

Toomra; porous red iron clay.

Angier; hillocks of wacken pebbly conglomerate, same as from *Mujjul*; and close-grained basalt from a cone 200 feet high.

Dharniyo; iron veins in sand, worked as an ore; fossil trunk of a tree found in the soil.

Mhur; lithomarge, yellow clay, iron conglomerate.

Badra; continuation of the yellow limestone, with pectens and cytheria?—(16).

Jeradar; low hillocks of a porous light grey volcanic tuffa.

The volcanic field of this province deserves a minute examination—and it is much to be regretted that Captain BURNES did not favor the Society with sections and maps of the country to elucidate his specimens. This enterprising officer is again employed on a mission to *Sinde*, whence we shall doubtless soon hear of fresh researches and discoveries.

Dr. PEARSON read a memorandum on the *gaur* and *gayal*, in justification of the name given to the specimen of the former in the Society's museum.

[This note and Mr. EVAN's, read at the last meeting, will be published in our next.—ED.]

XIV.—*Meteorological Register.*


Meteorological Register, kept at the Assay Office, Calcutta, for the Month of February, 1837.

| Day of the Month. | Observations at 10 A. M. | | | | | | Observations at 4 P. M. | | | | | | Temperature of water at 10 A. M. | | | Wind. | Weather. | | | |
|-------------------|------------------------------|------------------------------|----------------------|-------------------------|---------------|------------|------------------------------|------------------------------|----------------------|-------------------------|-------------|---------------|----------------------------------|----------------------|-------|-------|----------|------------|-------------|-----------|
| | Old Stand. Barometer at 32°. | New Stand. Barometer at 32°. | Thermome-ter in air. | Depression of wet-bulb. | Do. by Hygro. | Dew-point. | Old Stand. Barometer at 32°. | New Stand. Barometer at 32°. | Thermome-ter in air. | Depression of wet-bulb. | Do. by Les. | Do. by Hygro. | Hair Hygrometer. | Calculated Humidity. | Rain. | | 10 A. M. | 4 P. M. | Morning. | Evening. |
| 1 | 30,061 | 30,140 | 60.3 | 1.6 | 2.1 | 91 | 29,966 | 29,998 | 77.7 | 10.3 | 11.0 | 71 | 52 | 45 | | S. W. | S. W. | cum. stra. | fine. | |
| 2 | 0,647 | 0,696 | 69.4 | 1.7 | 2.0 | 91 | 0,945 | 0,888 | 79.7 | 10.0 | 10.5 | 76 | 55 | 52 | | W. | o. | cumul. | do | |
| 3 | 0,694 | 0,667 | 72.1 | 1.7 | 3.2 | 90 | 0,964 | 0,914 | 77.5 | 12.0 | 13.0 | 70 | 45 | 44 | | o. | N. | cir. cum. | do | |
| 4 | 0,630 | 29,384 | 71.9 | 1.1 | 3.2 | 90 | 0,985 | 0,932 | 79.3 | 13.5 | 17.1 | 61 | 34 | 33 | | N. | o. | cum. str. | do | |
| 5 | 0,957 | 0,916 | 74.5 | 1.9 | 7.8 | 82 | 0,843 | 0,768 | 80.9 | 11.2 | 12.2 | 74 | 52 | 40 | | S. W. | SSW. | cumul. | fine. | |
| 6 | 0,907 | 0,976 | 73.5 | 4.3 | 5.3 | 89 | 0,983 | 0,957 | 83.4 | 14.7 | 15.6 | 68 | 40 | 41 | | S. W. | S. | clear. | do | |
| 7 | 0,970 | 0,926 | 73.5 | 5.8 | 7.2 | 82 | 0,996 | 0,906 | 84.1 | 16.3 | 16.9 | 63 | 35 | 37 | | N. | S. W. | do | clear. | |
| 8 | 0,954 | 0,968 | 75.6 | 9.3 | 11.5 | 77 | 0,923 | 0,909 | 83.8 | 15.3 | 15.6 | 68 | 39 | 41 | | W. | S. W. | cumul. | do | |
| 9 | 0,900 | 29,957 | 76.7 | 5.2 | 5.7 | 85 | 0,972 | 0,919 | 83.9 | 12.9 | 13.6 | 71 | 47 | 45 | | S. | S. | clear. | do | |
| 10 | 29,949 | 0,954 | 77.6 | 6.6 | 6.4 | 84 | 0,905 | 0,933 | 85.1 | 17.8 | 18.9 | 62 | 32 | 32 | | S. W. | sw. | do | do | |
| 11 | 0,845 | 0,901 | 76.6 | 4.4 | 5.9 | 88 | 0,904 | 0,826 | 81.7 | 7.9 | 7.4 | 82 | 32 | 34 | | S. | S. | do | do | |
| 12 | 0,849 | 0,940 | 70.5 | 4.8 | 4.4 | 89 | 0,904 | 0,863 | 74.9 | 6.8 | 7.0 | 83 | 67 | 64 | | ne. | N. | cum cir. | stormy. | |
| 13 | 30,104 | 30,104 | 69.2 | 9.9 | 3.5 | 73 | 0,47 | 0,403 | 30,000 | 73.1 | 14.3 | 14.9 | 65 | 32 | 37 | 1.00 | nw. | N. | threatning. | overcast. |
| 14 | 0,444 | 0,485 | 69.7 | 8.0 | 7.1 | 63 | 0,40 | 0,29 | 29,959 | 29,976 | 16.0 | 14.3 | 61 | 27 | 32 | | n. | N. | clear. | clear. |
| 15 | 0,634 | 0,685 | 69.7 | 6.1 | 7.1 | 79 | 0,57 | 0,529 | 0,608 | 77.7 | 13.0 | 12.6 | 73 | 42 | 43 | | n. | N. | do | do |
| 16 | 0,697 | 0,693 | 72.2 | 6.1 | 7.8 | 83 | 0,67 | 0,64 | 0,630 | 0,572 | 79.3 | 8.7 | 9.0 | 84 | 60 | 65 | S. | se. | haze. | do |
| 17 | 0,623 | 0,609 | 73.8 | 4.1 | 3.1 | 89 | 0,60 | 0,588 | 0,524 | 81.9 | 10.2 | 10.3 | 89 | 56 | 59 | | S. W. | se. | cumul. | do |
| 18 | 0,952 | 0,927 | 74.7 | 2.3 | 4.7 | 91 | 0,87 | 0,947 | 0,899 | 82.1 | 8.7 | 7.2 | 82 | 62 | 62 | | NW. | n. | do | do |
| 19 | 0,979 | 0,939 | 76.0 | 4.3 | 4.7 | 89 | 0,964 | 0,926 | 82.1 | 11.8 | 12.0 | 75 | 50 | 50 | | N. | N. | clear. | do | |
| 20 | 1,338 | 1,114 | 76.7 | 10.4 | 10.0 | 76 | 0,52 | 0,509 | 0,988 | 82.5 | 14.9 | 14.0 | 70 | 39 | 44 | | n. | nw. | do | do |
| 21 | 1,448 | 1,229 | 73.9 | 14.3 | 14.6 | 67 | 0,33 | 0,492 | 0,985 | 81.4 | 19.0 | 18.5 | 59 | 22 | 30 | | n. | N. W. | cir. cum. | do |
| 22 | 0,994 | 0,968 | 72.4 | 13.8 | 15.0 | 69 | 0,33 | 0,422 | 0,995 | 83.7 | 22.0 | 21.8 | 56 | 17 | 27 | | NW. | N. E. | clear. | do |
| 23 | 0,936 | 0,963 | 76.4 | 12.7 | 6.5 | 68 | 0,42 | 0,939 | 0,858 | 85.5 | 22.7 | 24.8 | 56 | 17 | 27 | | o. | w. | do | do |
| 24 | 29,931 | 29,907 | 76.0 | 5.6 | 5.6 | 86 | 0,72 | 0,811 | 0,745 | 87.4 | 17.6 | 18.0 | 66 | 34 | 38 | | S. | W. | do | do |
| 25 | 0,893 | 0,868 | 79.0 | 13.1 | 15.5 | 69 | 0,42 | 0,776 | 0,729 | 88.5 | 20.8 | 21.5 | 50 | 26 | 28 | | n. | N. | do | do |
| 26 | 0,921 | 0,907 | 79.3 | 12.4 | 13.7 | 74 | 0,45 | 0,903 | 0,769 | 88.4 | 19.0 | 19.6 | 68 | 30 | 34 | | n. | N. | do | do |
| 27 | 0,970 | 0,939 | 79.7 | 6.1 | 8.2 | 85 | 0,68 | 0,862 | 0,813 | 90.1 | 17.9 | 19.3 | 67 | 35 | 40 | | w. | o. | do | do |
| 28 | | | | | | | | | | | | | | | | | | | | |
| Mean, | 36,032 | 36,010 | 74.0 | 7.2 | 7.3 | 82 | 64 | 63 | 29,919 | 29,873 | 81.9 | 14.3 | 14.6 | 69,1 | 41 | | | | | |

The barometrical differences at 10 and 4 are .022 and .046. In January they were .024 and .038. From the 20th the old hygrometer, supplied with new hair and properly veri-
fied in its scale, is registered.

Specimen of the Ahom, or Assam, Character, from a manuscript volume presented to the Society by Capt. Jenkins.

1835.


 ၅ ပိနိပိယ မိဝ် နှိကိက ဝက်ဟေ ပိမိနိကိ ၂ ပိမိကိပိ
 ကိကိ မိပိကိဝ် ဝက် ၂ နိကိကိ ကိပိကိပိ မိဝ် မိပိကိဝ် ၂
 ဝက်ကိကိ နိပိဟေ ဝက် ပိမိကိပိ မိဝ် ကိဝ် ၂ ဝက်ကိ ဝက်
 မိကိကိ ၂ ကိပိဝ်ကိ မိကိကိ ကိကိ: ကိဝ် ၂ ဝက်ကိ ဝက်
 ကိဝ် ကိကိ ပိကိဟေ ၂ ကိကိ နိပိဟေ မိပိ မိပိကိ ကိဝ် ၂
 ဝက်ကိကိ ယု မိဝ် နိပိ ဝက် ၂ ဝက်ကိ ဝက်ကိ ဝက်ကိ မိဝ် ၂ ဝ်
 နိပိကိ ဝက်ကိ မိဝ် ကိပိကိ ၂ ကိကိ ကိပိ ဝက်ကိ မိပိ ၂ ပိဝ်
 ကိကိ ဝက်ကိ ကိ မိပိ နိပိ ဝက်ကိ မိဝ် ကိပိ ၂ ကိပိ ကိဝ်
 ကိဝ် ကိကိ ပိကိဟေ ၂ ကိကိ ဝက်ကိ မိပိ မိပိကိ မိပိ ကိ
 ပိပိ မိပိကိ ကိဝ် ၂ ဝက်ကိ ဝက်ကိ မိပိ မိပိကိ မိပိဟေ နိပိ
 ကိပိ မိပိကိ ၂ ကိကိ မိပိ ကိကိ ၂ ဝက်ကိ ကိဝ် ကိပိ
 ကိကိ ကိဝ် ကိပိကိ ကိပိကိ ၂ ဝက်ကိ ကိဝ် ကိပိကိ
 ကိကိ ကိဝ် ကိပိကိ ကိပိကိ ၂ ကိကိ ကိပိ ကိပိကိ ၂

Ahom Alphabet prefixed to the same volume.

၅ က: ka ကှာ khá ဂ ga ဂှာ ghá ဝါ ngá ဝာ tá ဝာ thá
 ဂှာ dá ဝှာ dhá ကါ ná ဟှာ há ဝာ bá ဟှာ bhá
 မာ má ကှာ chá ကှာ sá ဟှာ yá ဟှာ já ကှာ ngá ဝါ rá
 ကှာ lá ကှာ á ကှာ há

၀ ကှာ ကှာ ကှာ ကှာ ကှာ ဝိပိ ဝိပိ ဝိပိ ဝိပိ ဝိပိ
 kan kin kun kōn keun rap rēp rup rōrē reup

က ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ ကှာ
 a á i ú u ú ō eu ē ě ō ai au äw iw oi ang

The first line in roman letters :

(AUM?) pin-nga-yi-meuw-ran-kō-taū. phá-pai-má-nin : páimí-leup



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